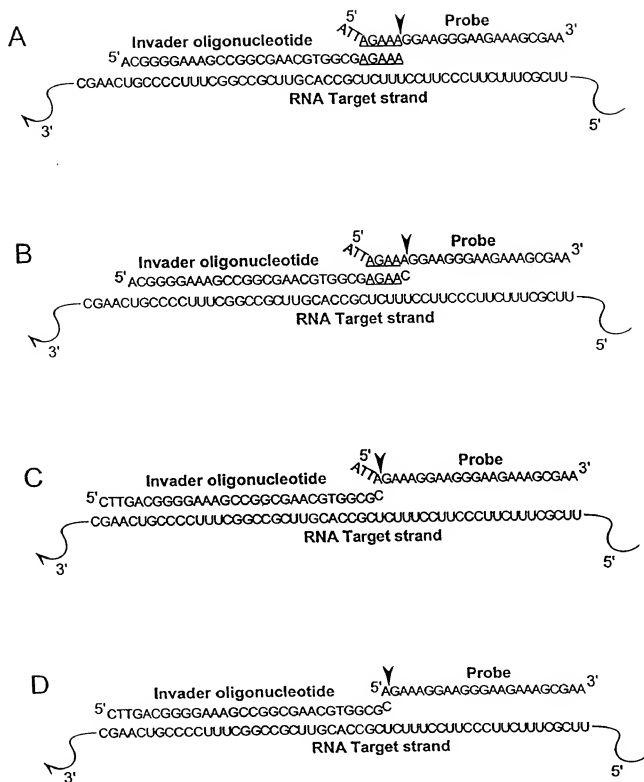


FIGURE 1

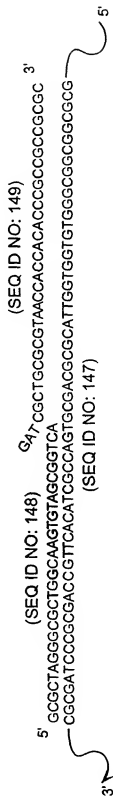


FIGURE 2





A



B

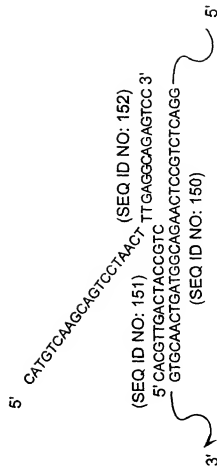


FIGURE 3

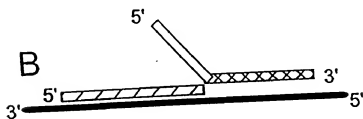
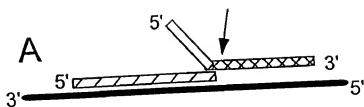


FIGURE 4

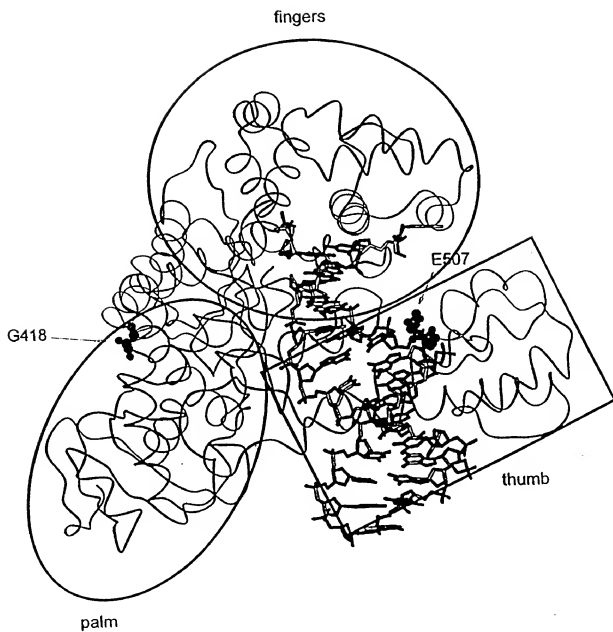


FIGURE 5

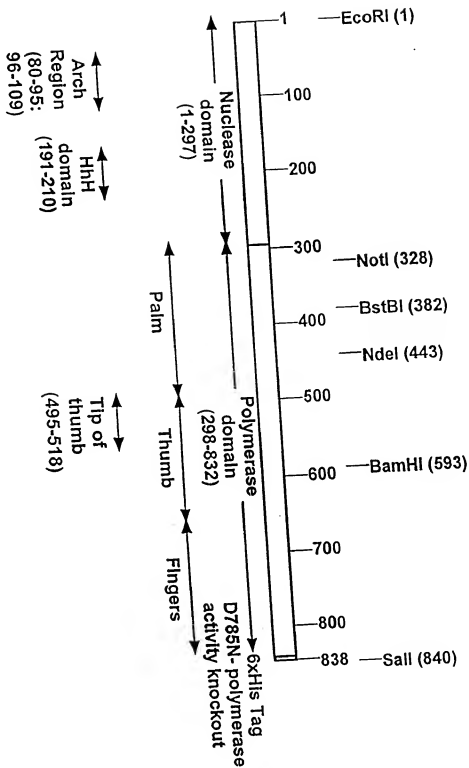


FIGURE 6

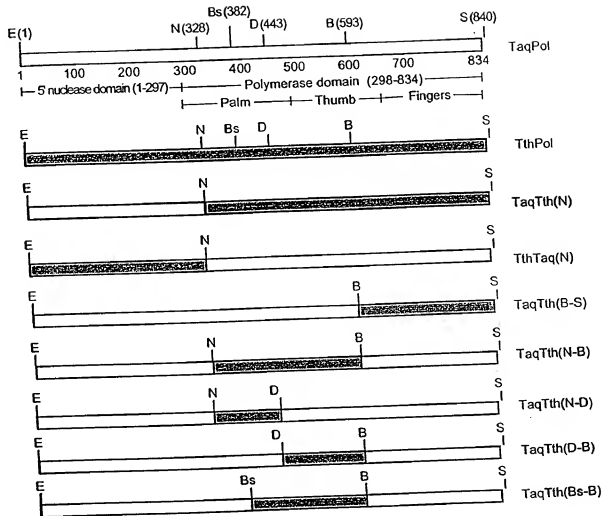


FIGURE 7



FIGURE 8A

MAJORITY [SEQ ID NO:150] ATGXXGGGATGCTTGGCGTCTTGAAGCGAAGGGCGGCTCTCTGCTGTTGAGGGCGAGCGCTGGCT	
DNAPTAQ [SEQ ID NO:153] ... AG... G... .. G... ..	70
DNAPTEL [SEQ ID NO:154] ... .. G... G... ..	67
DNAPTH [SEQ ID NO:155] ... CA... .. A... ..	70
MAJORITY ACCGACGCTTCTTGGCGCTGAAGGGCGCTCACCACCGCGGGCGCGAAGCGGCTGAGGGCGCTTACGGCTT	
DNAPTAQ ... CA... .. G... G... ..	140
DNAPTEL ... T... C... .. C... C... T... ..	137
DNAPTH ... .. G... ..	140
MAJORITY CGCCAGAGCGCTGCTCAGGGCGCTGAAGGAGGAGCGGGGACXXGGGGCTGXTCTGCTGCTTTGAGGGCGAAG	
DNAPTAQ ... .. C... .. A... ..	207
DNAPTEL ... .. A... .. GT... T... ..	204
DNAPTH ... .. T... AA... C... CT... ..	210
MAJORITY CGCGCGTCTT CGGGCGAGCGGCTACGAGGCGCTACAAGGCGGGCGGGCGGGCGGGCGGGCGGGAGCTTTC	
DNAPTAQ ... .. G... GG... .. G... ..	277
DNAPTEL ... ..	274
DNAPTH ... .. CA... .. G... .. C... ..	280
MAJORITY CGCGGAGGCTCGCGCTCATCAGAGGCTGCTGAGCTCTCTGGGGCTTGGGGCGCTCGAGGCTCGCGGGCTA	
DNAPTAQ ... .. A... .. G... .. G... ..	347
DNAPTEL ... .. G... .. T... .. A... C... T... G... G... T... ..	344
DNAPTH ... .. T... .. T... A... C... ..	350





FIGURE 8B

MAJORITY	CSEQ ID NO:150	CGAGCGGAGGAGCTXCTGGCCAGCCTGGCCACAGAGCGCGGAAAGCGAGGGGTACGAGGTCGGCATCCTC	
DNAPTAQ	CSEQ ID NO:153	.....C.....G.....C.....C.....	417
DNAPTEL	CSEQ ID NO:154	.....G.....CG.....	414
DNAPTH	CSEQ ID NO:155	.....T.....C.....	420
MAJORITY	ACCSCGACCGGAGCCTGTACGAGCTCCTTCGAGCGGATCGCCTCTCTCGACCGCGAGGGGTACCTCA		
DNAPTAQ	.....AAA.....T.....CA.....	487	
DNAPTEL	.....T.....G.....G.....A.....T.....G.....	484	
DNAPTH	.....A.....G.....G.....CC.....	490	
MAJORITY	TCACCGCGGCTGGCTTGGGAGAGTACGCGCTGAGCGCGGAGCAGTGGGTGGACTACCGCGCGCTGGC		
DNAPTAQ	.....C.....A.....C.....C.....CC.....A.....	557	
DNAPTEL	.....AC.....C.....C.....	554	
DNAPTH	.....A.....C.....T.....C.....C.....T.....	560	
MAJORITY	GGGGAGCGCCTCGGAGACGCTCGCGGGGTGAGGGGATGGGGAGAGACCGCGCGCGAGGCTCGCTCXAG		
DNAPTAQ	.....GAG.....T.....G.....GAG.....T.....GG.....	627	
DNAPTEL	.....G.....T.....A.....G.....A.....G.....A.....CGC.....	624	
DNAPTH	.....T.....C.....C.....TC.....A.....	630	
MAJORITY	GAGTGGGGAGCCTGGAAAAAGCTCTCAAGAACCTGGACCGGGTGAAGCGCGC...CXTGGGGAGAGAA		
DNAPTAQ	.....CG.....C.....A.....	694	
DNAPTEL	.....T.....C.....C.....A.....T.....T.....G.....C.....	691	
DNAPTH	.....A.....A.....A.....A.....A.....A.....	700	



FIGURE 8C

MAJORITY [SEQ ID NO:156]	TCGAGGCGCAGATCGAXGACGTGAXGCTCTCTCGGAGCTTCCGAGGTGCGCAGCGACCTGCGCCCTGGA	
DNAPTAQ [SEQ ID NO:153]	.....C..T....A.....C..G..A.....	764
DNAPTEL [SEQ ID NO:154]	.....GGG.....G.C....GGG..T..C..A..T.....A..T.....	761
DNAPTH [SEQ ID NO:155]	.....A.....C..A.....C.G....T.....C....G.....C.....	770
MAJORITY	GGTGACTTGGCAGACXGGCGGGAGCGCGGAGCGGGGCTTAGCGGCTTCTCGAGAGGCTCGAGTTT	
DNAPTAQ	.....AA.....A.....T.....T.....	834
DNAPTEL	.....GG.G.C.C..CACA..A..T.....T..GG..T..T.....C..T.....	831
DNAPTH	.....C.....C..G.....C.....C.....	840
MAJORITY	GCGAGCTCTCGACGAGTTGCGCTCTGAGAGGCGCGCAGGCGCTGAGAGGCGCGCTGCGCGCGCG	
DNAPTAQ	.....T.....AA.....	904
DNAPTEL	.....A.....G..G....GGCA.....	901
DNAPTH	.....C.....C....GGCG.....	910
MAJORITY	GGGAGGCGGCTCTGCGCTTGTCTTCCGCGCGCGCAGCGCCATGTGCGCGCGAGGTTCTGCGCGCTGGC	
DNAPTAQ	.....G.....G.....AAG.....T.....	974
DNAPTEL	.....T..T.....TG.T.....T.....	971
DNAPTH	.....C.....C.....C.....AAA.....	980
MAJORITY	GCGCGCGAGGCGGCGGCTCCACCGCGCGCAGCGCCCTTAXGCGGCTXAGGAGCTXAGGAGGCTG	
DNAPTAQ	.....G.....C.....C..C..G..T.A..AA..C.....C.....	1044
DNAPTEL	T.GG..GT.....G..CC..T.....A.....C....G....G.....T..G.....	1041
DNAPTH	.....TG.....C.....G.....G.....GGC...G..A..A.....C.....	1050



FIGURE 8D

MAJORITY [SEQ ID NO:150] CGGGGXTCTCTCGGCAAGGACCTGGCGCTTTGGCGCTGAGGAGGGCGCTXGACCTCTGCGCGGGGAGG  
 DNAPTAG [SEQ ID NO:151] .....G..T.....A.....AG....C.....A.....T..G....CG.....C..... 1114  
 DNAPTFL [SEQ ID NO:152] .....AA..G.....G.....G.....C.....G.....I..C..A..A..... 1111  
 DNAPTTH [SEQ ID NO:153] .....C.....C.....C.....C.....C.....C.....G.....G.....A.....G..... 1120

MAJORITY ACCGCATGCTGCTGGCTACGCTGGAGCGCTCCAGACACGACCGCGGAGGGGGTGGCGCGGCGCTACGG  
 DNAPTAG .....T..... 1184  
 DNAPTFL .....G.....T..... 1181  
 DNAPTTH .....G.....T..... 1190

MAJORITY GGGGAGTGGAGCGGAGGAXCGGGGGGAGCGGGCGCTCTTCGAGAGGGCTTTCXGAGCTXXYGAG  
 DNAPTAG .....C.....G.....T.....GG.....GTG...G. 1254  
 DNAPTFL .....T.....A.....GG.....C..C.....A..C...AAA... 1251  
 DNAPTTH .....C..C.CCG.C.....C..G.....CAT..G.....CCTTA.. 1260

MAJORITY CGCCCTGAGGGGGAGGAGAGGGCTGCTTGGCTTTACGAGGAGCTGGAGAGGGCGCTTTCGGGGCTGCTGG  
 DNAPTAG A..G.....G.....G.....G.....GCT..... 1324  
 DNAPTFL .....A..A..A..A.C..G.....G.....G.....GT..... 1321  
 DNAPTTH .....C.....A.....A.....C.....C.....A.....C..... 1330

MAJORITY CGGCATGAGGGGCGGCGGGGTGCGGCTGGAGCTGGCGCTAGCTCGAGGGCGCTXGCGTGGAGGCTGGCGGA  
 DNAPTAG .....G..C.....T.....AG.....T..G.....C.. 1394  
 DNAPTFL .....G.....C.....C.....C.....C.....A..C 1391  
 DNAPTTH .....C.....A.....T.....T.....C..T..... 1400



FIGURE 8E

MAJORITY [SEQ ID NO:150]	GGAGATCGCGCGCGCTCGAGAGAGAGGTCTTCCGCGTCCCGCGCGCACCGCTTCAAGCTCAAGTCCGCGGAC	1464
DNAPTAQ [SEQ ID NO:153]	.....GC.....CG.....	1461
DNAPTEL [SEQ ID NO:154]	.....G.G.....AG.G.....	1461
DNAPTH [SEQ ID NO:155]	.....T.....G.....	1470
MAJORITY	CAGCTGGAAAGGTGCTCTTTCAGCAGCTXGGGCTTCCGCGCATCGGCAGAGCGGAGAGACXGGCGAGC	
DNAPTAQ	.....C.....A.....	1534
DNAPTEL	.....GC.....G.C.G.T.....	1531
DNAPTH	.....TA.....T.A.....I.G.G.....C.A.A.....	1540
MAJORITY	GCTCCAGCGCGCGCGCTCTCGAGCGGCTXCGXAGCGCGCGCCGCAATCGTGGAGAGATCGTCCAGTA	
DNAPTAQ	.....C.....C.....C.....	1604
DNAPTEL	.....T.....G.A.....CCGC.....	1601
DNAPTH	.....G.....A.G.....C.C.....	1610
MAJORITY	CGCGGAGCTCACCAGGCTCAAGAACACCTACATXGACCGCGCTGCGXGCTGCTCGACCGCGGAGCGGGC	
DNAPTAQ	.....G.....G.....T.....T.....G.A.....A.....	1674
DNAPTEL	.....A.....C.C.....G.....A.....C.....	1671
DNAPTH	.....G.G.....C.AAG.....G.....	1680
MAJORITY	CGGCTCCACACCGCGCTTCAAGCCAGAGCGCGCGCACCGCGGAGGCTTACTAGCTCGAGCGGCAACCTGC	
DNAPTAQ	.....A.....T.....C.....	1744
DNAPTEL	.....G.....C.....TCC.....	1741
DNAPTH	.....G.....	1750



FIGURE 8F

MAJORITY [SEQ ID NO:156]	AGAACATCCCGCTCGGACCCGCGTGGGCGAGAGGATCCGCGGGCGCTTCGTGGCGGAGGAGGGTGGGT	
DNAPTAQ [SEQ ID NO:153]	.....G..T..G.....A..C.....G...C..	1814
DNAPTEL [SEQ ID NO:154]	.....G.....T.....C..C.....A.....C.....	1811
DNAPTH [SEQ ID NO:155]	.....GT.....CT.....C.....T.....C.....	1820
MAJORITY	GTTCGTGGCCCTGGACTATAGCCAGATAGAGTCCGGGTCCTGGCGGACCTGTCCGGGAGGAGAACCTG	
DNAPTAQ	A.....T.....A.....G.....C.....	1884
DNAPTEL	C.....T.....C.....T.....C.....	1881
DNAPTH	.....C.....G.....C.....A.....	1890
MAJORITY	ATCGGGTCTTCGAGGAGGAGGAGGACATCCACAGCCGAGAGCCGAGGTGGATGTTGGCGTCCCGCGG	
DNAPTAQ	.....C.....GG.....G.....G.....	1954
DNAPTEL	.....T.....A.....T.....C.....	1951
DNAPTH	.....A.....A.....A.....	1960
MAJORITY	AGGCGCTGGACCCCGCTGATCGCGCGGCGGCGGCGAGGACCATCAACTTCGGGCTCCTATCGGCGATGTCCGC	
DNAPTAQ	.....G.....G.....G.....G.....	2024
DNAPTEL	A..GG..A.....T.....G.....G.....	2021
DNAPTH	.....GG..G.....C.....C.....	2030
MAJORITY	CCACCGGCTGTCCGAGGAGCTTGGCATCCGCTACGAGAGGCGGCTGGGCTTCATTAGCGGCTAGCTCCAG	
DNAPTAQ	.....A.....T.....GGA.....T.....	2094
DNAPTEL	.....GG.....T.....T.....	2091
DNAPTH	.....TA..G.....T.....A.....A.....	2100



FIGURE 8C

MAJORITY [SEQ ID NO:150]	AGCTTCGGCAAGGTCGGGGGCTGGATTGAGAGAGCCCTGGAGAGGGGAGGAGGGGGGCTACGTGGAGA	2164
DNAPTAQ [SEQ ID NO:153]	.....A.....	2161
DNAPTFL [SEQ ID NO:154]	.....GG.....G.....C.....C.....T.....	2170
DNAPTH [SEQ ID NO:155]	.....A.....A.....G.....C.....C.....A.....	
MAJORITY	CGCTCTTCGGCGCGCGCGCGCTACGTGCGCGGACCTCAACCGCGCGGCTGAGAGCCGTCGGGGGAGGGGGGGGA	
DNAPTAQ	.....C.....A.....AG.G.....	2234
DNAPTFL	.....T.....	2231
DNAPTH	.....AA.AA.....CA.....C.....	2240
MAJORITY	GGCGATGGCTTCAACATGCGCGTCGAGGGGACCGCGCGGACCTCATGAGGTGGCGATGGTGAAGCTC	
DNAPTAQ	.....G.....T.....	2304
DNAPTFL	.....G.....	2301
DNAPTH	.....C.....	2310
MAJORITY	TTCCCGCGGCTXCAGGGAATGGGGGCGGAGGATGCTCCTXCAGGTCACAGGAGGCTGGTCTCGAGGGCG	
DNAPTAQ	.....A.....GG.....T.....	2374
DNAPTFL	.....T.....C.....G.....TT.G.....G.....	2371
DNAPTH	.....C.....C.G.G.....C.....C.....CC.....G.....	2380
MAJORITY	CCAAAGAGCGGGCGGAGGXGGTGGCGGCTTGGCCAGAGGAGGTCATGGAGGGGCTGTATCCCGCTGGCGGT	
DNAPTAQ	.....A.....A.....CC.....GGGC.....G.....	2444
DNAPTFL	.....G.C.....AG.A.....	2441
DNAPTH	.....C.....C.....C.....A.....G.....C.....AA.C.....C.....	2450



FIGURE 8H

MAJORITY [SEQ ID NO:156] CCCCTGGAGGTGGAGGTGGGATGGGGAGGACTGGCTGTCCGCCAAGGAGTAG

DNAPTAD [SEQ ID NO:153] .....A..... GA

DNAPTFL [SEQ ID NO:154] .....CC..... T.....

DNAPTTH [SEQ ID NO:155] .....T..... GT...

2499  
2498  
2505







FIGURE 9B

MAJORITY	[SEQ ID NO:159]IGLLAKDLAVLALREGLDXPDOPMLAYLLDPSNTTPEGVARRYGGEWTEGAGERALLSERLEFXNLXX	
TAO PRO	[SEQ ID NO:157].....S.....G.P.....E.....A.....A.....WG 418	
TFL PRO	[SEQ ID NO:158].....I.....F.E.....A.....OT.KE 417	
TTH PRO	[SEQ ID NO:13].....S.....V.....AH.....HR.LK 420	
MAJORITY	RIEGEERLLWLYXEVEKPLSRVLAHMEATGVRLDVAYLOALSLEVAEEIARLEEEVFRLAGHPFNLNSRD	
TAO PRO	.....R...R...A.....R.....A.....A.....488	
TFL PRO	.....K.....E.....R.....EA.V.O.....487	
TTH PRO	.....K.....H.....L.....L.....490	
MAJORITY	QLERVLFDELGLPAIGKTEKTGRSTSAUVEALREAHPIVEKILOYRELTKLKNTYIOPLPXLVHPRTG	
TAO PRO	.....R...L...O.....S.....D.I.....558	
TFL PRO	.....R...L...O.....DR.....A.....K.....557	
TTH PRO	.....R...L...O.....H.....V.....S.....560	
MAJORITY	RLHTRFNOTATGRLSDDPNLONI PURTPLOGRIRRAFVAEEGHWLVALDYSOIELRVLAHLSGDENL	
TAO PRO	.....I.....L.....L.....628	
TFL PRO	.....V.....V.V.....627	
TTH PRO	.....A.....A.....630	
MAJORITY	IRVFGEGRDIHTOTASWVFQVPEAVDPLMRRAAKTI NFGVLVYGSAAHRLSOELAI PYEEAVAFIERFYFO	
TAO PRO	.....E.....R.....0.....698	
TFL PRO	.....S...G.....G...S.....697	
TTH PRO	.....K.....V.....700	



FIGURE 9C

MAJORITY USED ID NO:159]SFPKVBWIEKTEEGRRRGYVETLFGRRRYVPDLNARVKSUREAERMAFNMPVGGTAADLMKLAHVKL

CSAQ PRO	CSAQ ID NO:157)	.....	E	768
CSAQ PRO	CSAQ ID NO:158)	.....	R	767
CSAQ PRO	CSAQ ID NO:159)	.....	K	770
CSAQ PRO	CSAQ ID NO:160)	.....		770

[illegible]

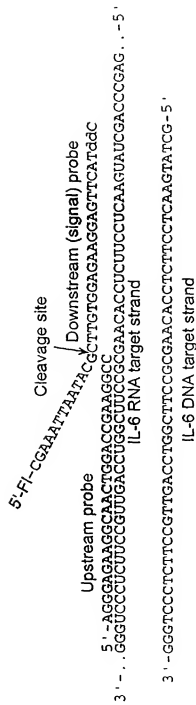
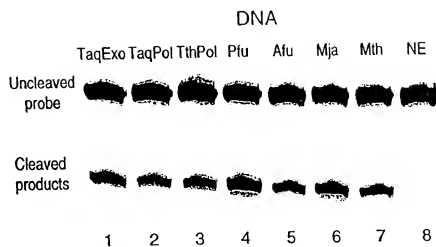


FIGURE 10



A



B

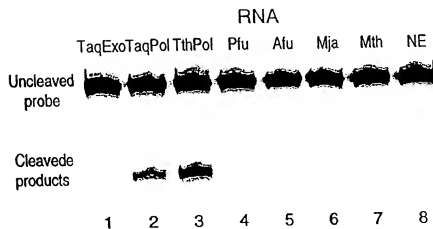


FIGURE 11

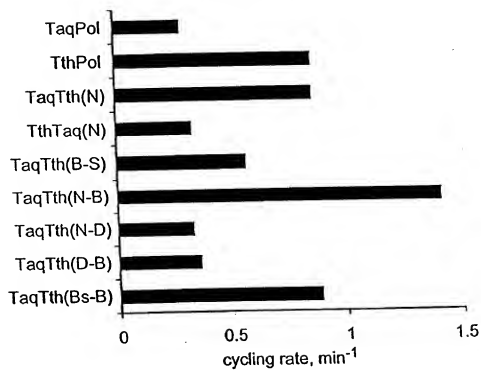


FIGURE 12



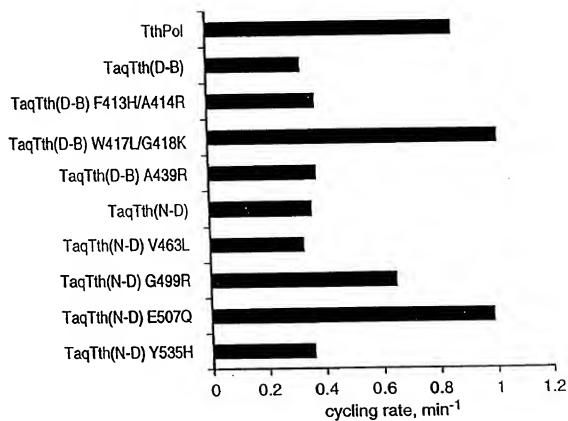


FIGURE 14

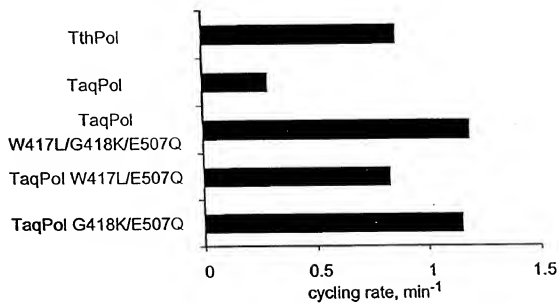


FIGURE 15





		Polymerase Activity Assays	
		<u>% FI-labeled dUTP incorporated</u>	
		<u>RNA, p(A) or DNA, p(dA) Template</u>	
	Nuclease Domain      Polymerase Domain		
Tth		5.8 (1.00)	14.8 (1.00)
Taq		0.8 (0.14)	15.0 (1.01)
TaqTth(N)		4.88 (0.84)	12.9 (0.87)
TaqTth(N-B)		0.58 (0.10)	13.3 (0.90)
TaqTth(B-S)		6.60 (1.14)	14.9 (1.01)
Taq(W417L/G418K/E507Q)		0.42 (0.07)	12.6 (0.85)

FIGURE 16



FIGURE 17

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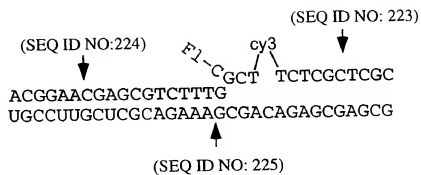


FIGURE 18A

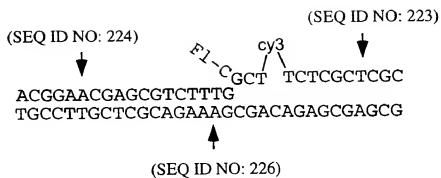


FIGURE 18B

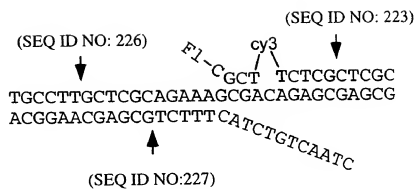


FIGURE 18C

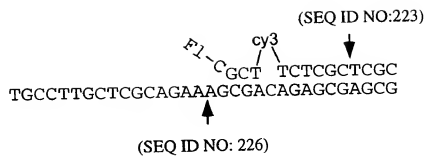


FIGURE 18D

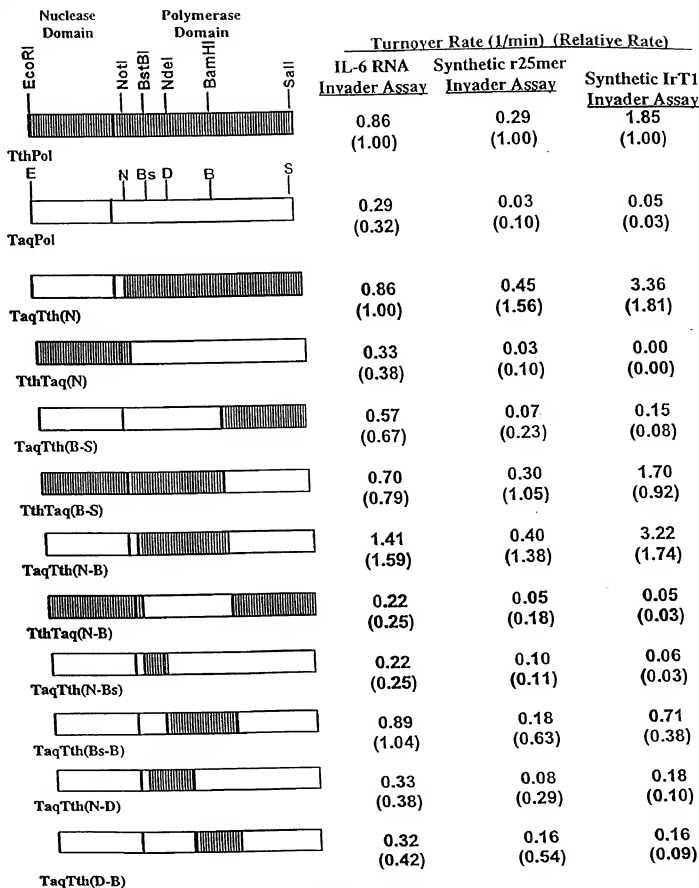


FIGURE 19

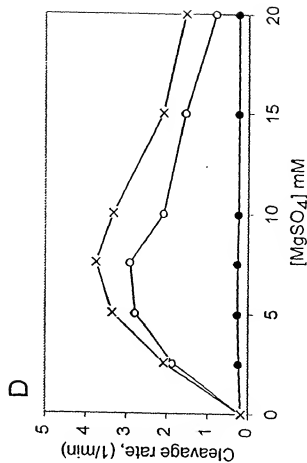
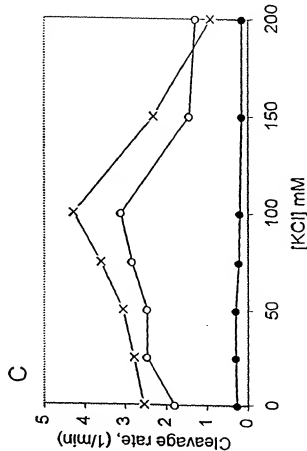
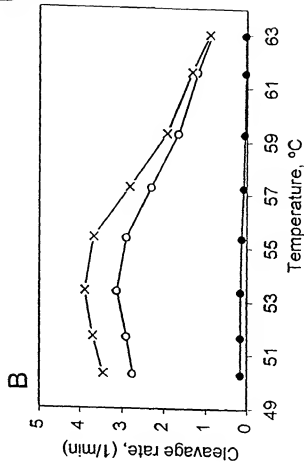
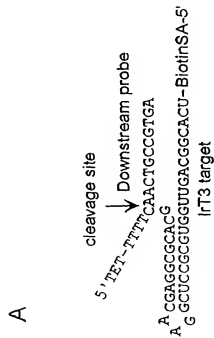


FIGURE 20





## FIGURE 21

A

5'-tet-TTTTCAACTGCCGTGA  
A CGAGGCGCACG  
A GCTCCGCGTGGTTGACGGCACT

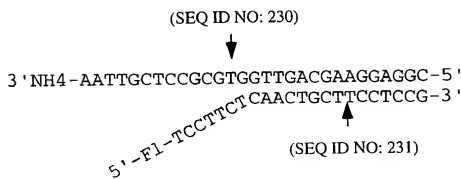
B

5'-tet-TTTTCAACTGCCGTGA  
A CGAGGCGCACG  
A GCUCGCGUGGUUGACGGCACU-BiotinSA-5'



## FIGURE 22

**A**

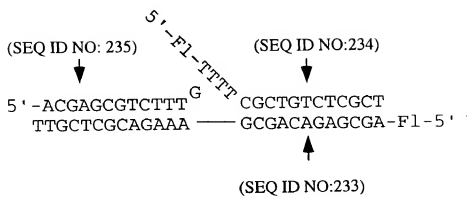


**B**





FIGURE 23





## FIGURE 24

A



B



FIGURE 25

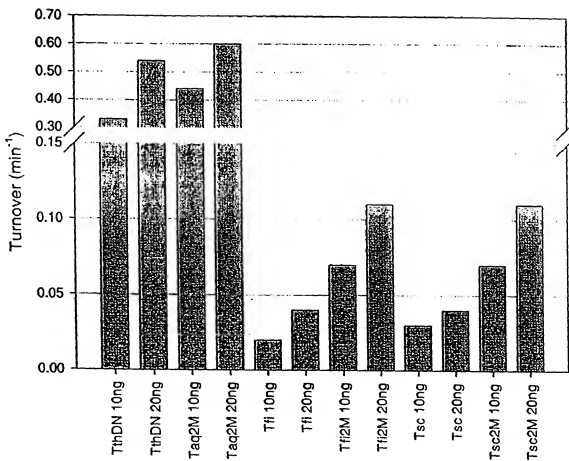


FIGURE 26

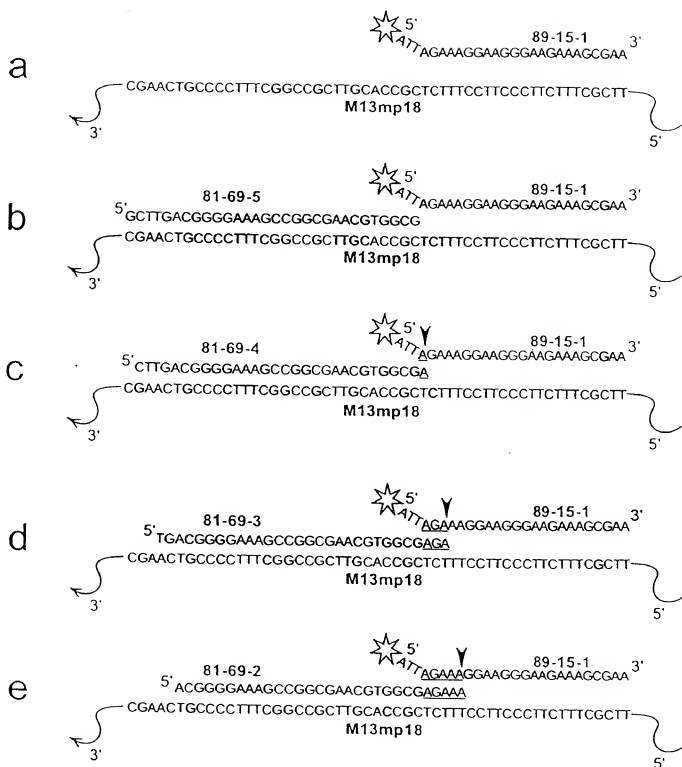




FIGURE 27

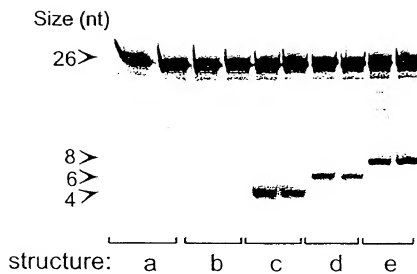
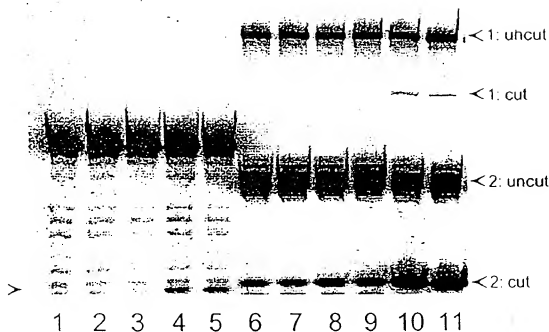




FIGURE 28

a



b

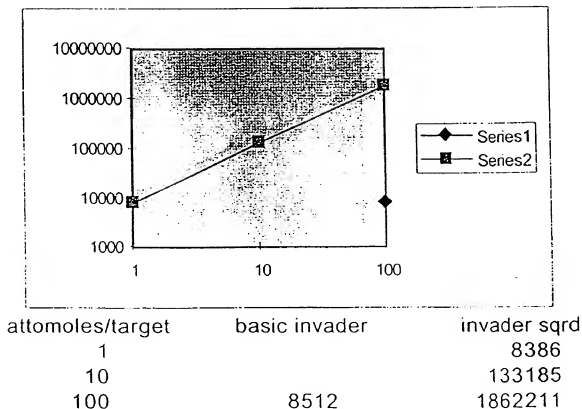






FIGURE 29

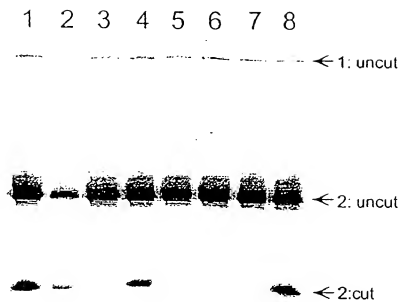




FIGURE 30

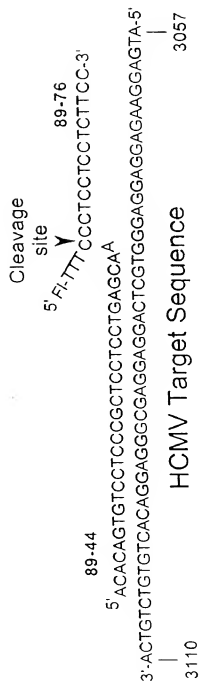




FIGURE 31

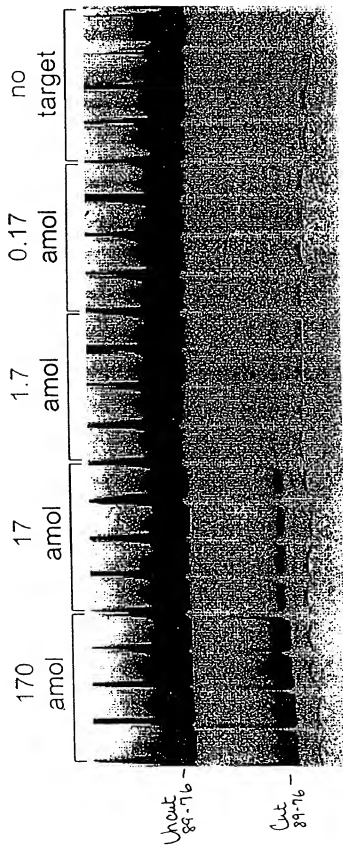
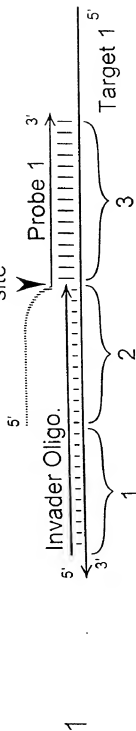
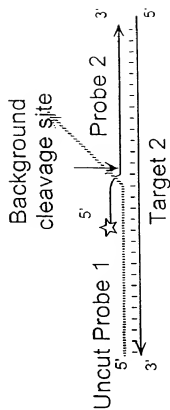


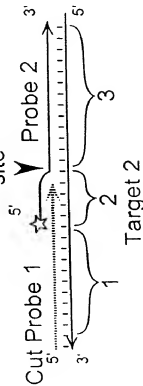
FIGURE 32  
 Cleavage site



Background  
 cleavage site



Cleavage  
 site



Cleavage  
 site

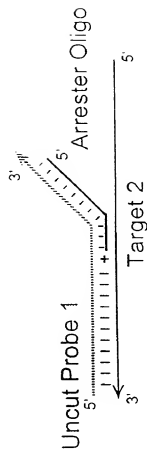
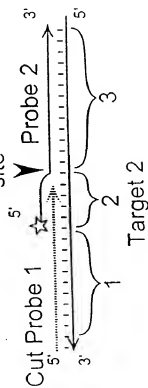


FIGURE 33

Cleavage

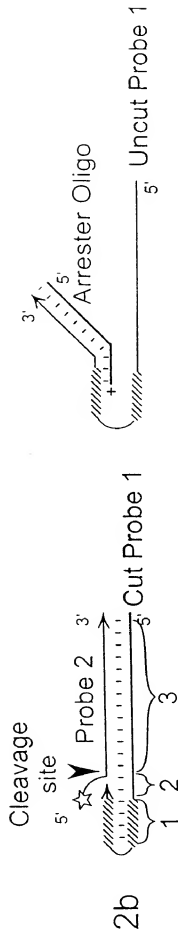
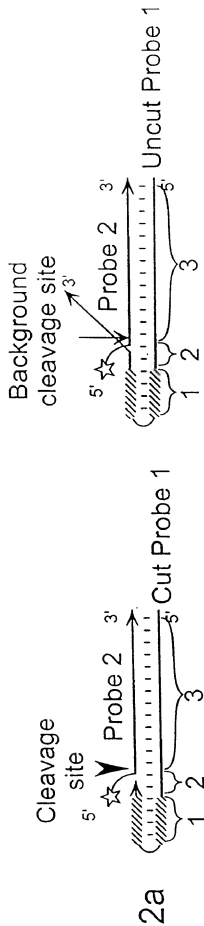
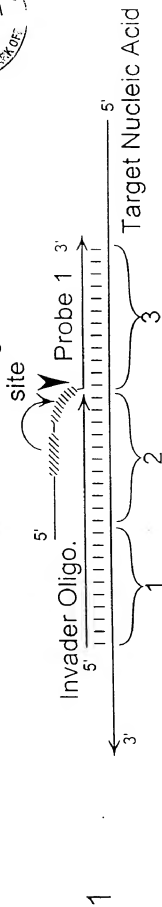
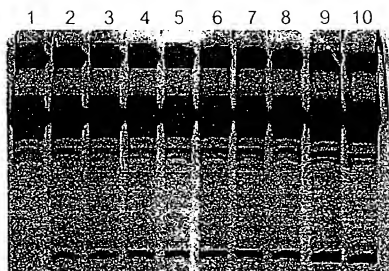


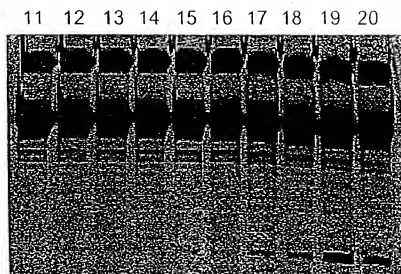


FIGURE 34

A



B



C

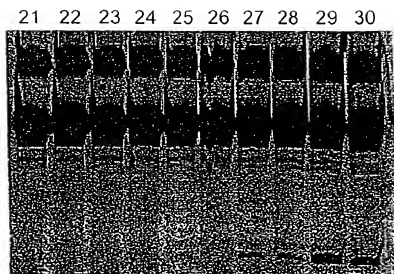




FIGURE 35A

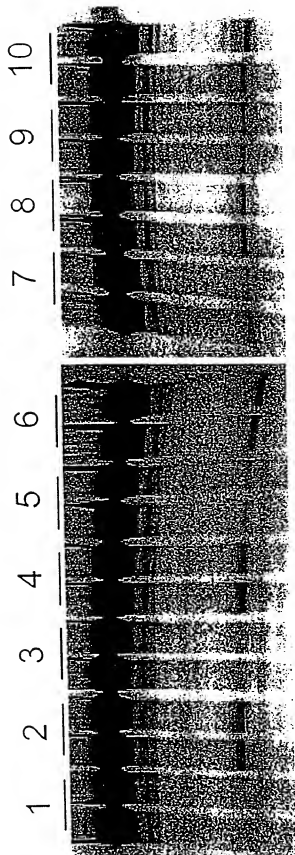




FIGURE 35B

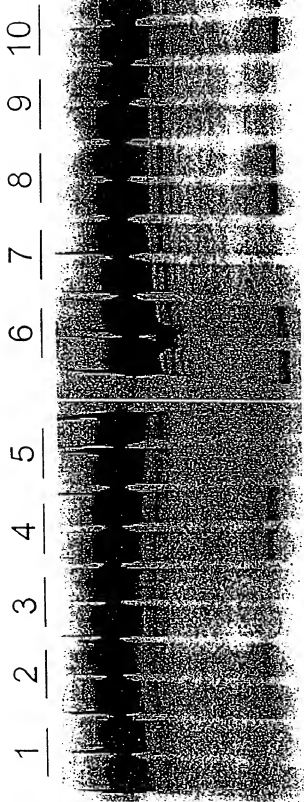






FIGURE 35C

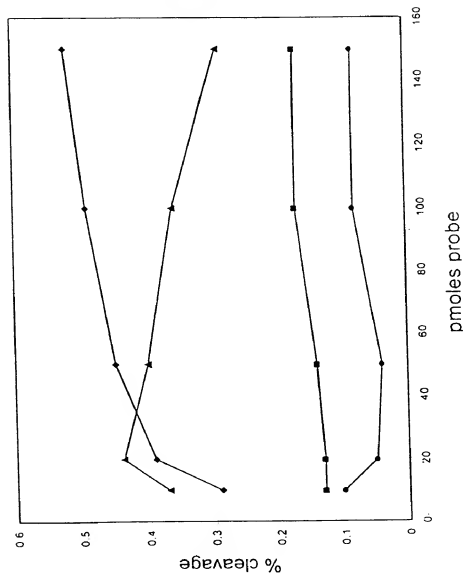




FIGURE 36A

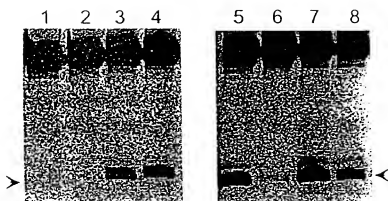




FIGURE 36B

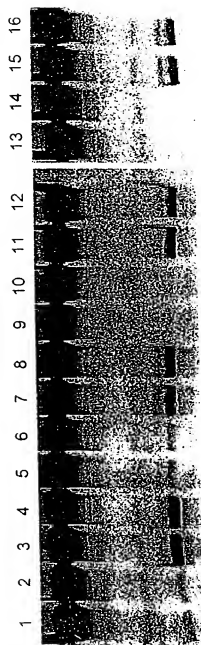




FIGURE 37A

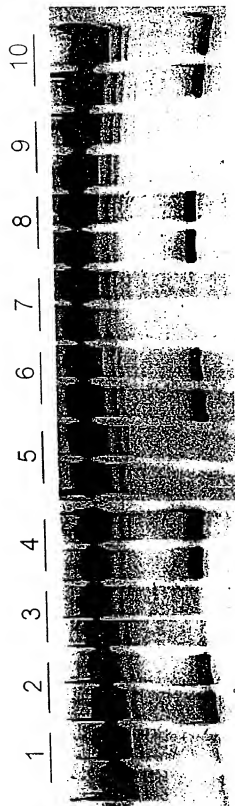




FIGURE 37B

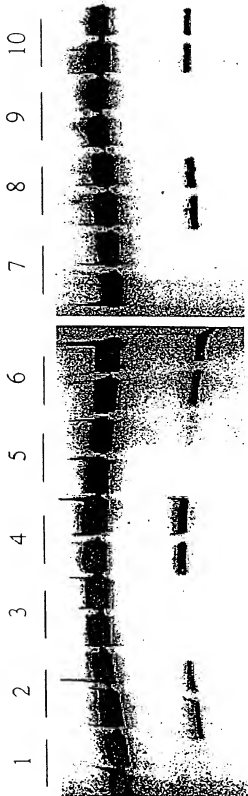




FIGURE 37C

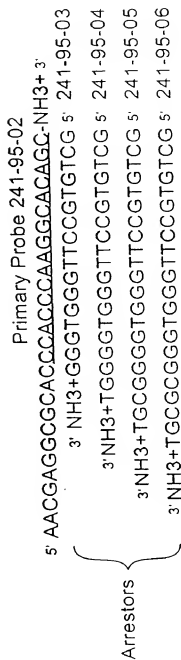
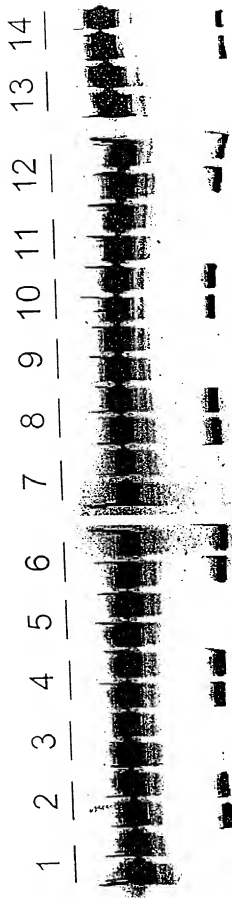


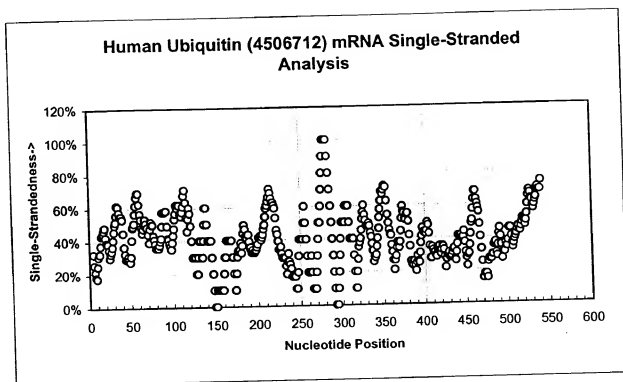


FIGURE 38





**Figure 39**







**FIGURE 40**

	1	2	3	4	5	6	7	8	9	10	11	12
	Negative Control	No Target Control	Sample 1	Sample 1	Sample 9	Sample 9	Sample 17	Sample 17	Sample 25	Sample 25	Sample 33	Sample 33
A	No Target Control	No Target Control	Sample 2	Sample 2	Sample 10	Sample 10	Sample 18	Sample 18	Sample 26	Sample 26	Sample 34	Sample 34
B	Standard 1	Standard 1	Sample 3	Sample 3	Sample 11	Sample 11	Sample 19	Sample 19	Sample 27	Sample 27	Sample 35	Sample 35
C	Standard 2	Standard 2	Sample 4	Sample 4	Sample 12	Sample 12	Sample 20	Sample 20	Sample 28	Sample 28	Sample 36	Sample 36
D	Standard 3	Standard 3	Sample 5	Sample 5	Sample 13	Sample 13	Sample 21	Sample 21	Sample 29	Sample 29	Sample 37	Sample 37
E	Standard 4	Standard 4	Sample 6	Sample 6	Sample 14	Sample 14	Sample 22	Sample 22	Sample 30	Sample 30	Sample 38	Sample 38
F	Standard 5	Standard 5	Sample 7	Sample 7	Sample 15	Sample 15	Sample 23	Sample 23	Sample 31	Sample 31	Sample 39	Sample 39
G	Standard 6	Standard 6	Sample 8	Sample 8	Sample 16	Sample 16	Sample 24	Sample 24	Sample 32	Sample 32	Sample 40	Sample 40

**FIGURE 41**

# hUbiquitin

Primary probe  
 INVADER oligonucleotide  
 ARRESTOR oligonucleotide  
 FRET Probe  
 Secondary target

5'-CGC CGA GAT CAC CTT TAC ATT TTC TAT CGT NH2-3'  
 5'-CCT TCC TTA TCC TGG ATC TTG GCA-3'  
 5'-ACG ATA GAA AAT GTA AAG GTG ATC-3'  
 5'-RED-CTC (Z28) TTC TCA GTG CG-3'  
 5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:169)  
 (SEQ ID NO:170)  
 (SEQ ID NO:171)  
 (SEQ ID NO:172)  
 (SEQ ID NO:173)

# m/r Ubiquitin, mouse (288C, 516C, 744C, 972C), rat (247C, 475C, 703C, 931C)

Primary probe  
 INVADER oligonucleotide 1  
 INVADER oligonucleotide 2  
 INVADER oligonucleotide 3  
 ARRESTOR oligonucleotide  
 FRET Probe  
 Secondary target

5'-CGC CGG AGA TCA CGG ATG TTG TAA TCA GAG A-NH2-3'  
 5'-GTG CAG GGT TGA CTC CTT CTC-3'  
 5'-GTG CAG GGT TGA CTC TTT CTC-3'  
 5'-GTG CAG GGT TGA CTC TTT CTC-3'  
 5'-TGT CTG ATT ACA ACA TCC GTG ATC T-3'  
 5'-RED-CTC (Z28) TTC TCA GTG CG-3'  
 5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:174)  
 (SEQ ID NO:175)  
 (SEQ ID NO:176)  
 (SEQ ID NO:177)  
 (SEQ ID NO:178)  
 (SEQ ID NO:179)  
 (SEQ ID NO:173)

# r/m GAPDH, rat (150C), mouse(166C)

Primary probe  
 INVADER oligonucleotide  
 ARRESTOR oligonucleotide  
 FRET Probe  
 Secondary target

5'-CGC CGA GAT CAC GTA GTT GAG GTC AAT GA-NH2-3'  
 5'-GAA TCA TAC TGG AAC ATG TAG ACC ATC-3'  
 5'-TCA TTG ACC TCA ACT ACG TGA TCT-3'  
 5'-RED-CTC (Z28) TTC TCA GTG CG-3'  
 5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:179)  
 (SEQ ID NO:180)  
 (SEQ ID NO:181)  
 (SEQ ID NO:172)  
 (SEQ ID NO:173)

# hGAPDH, 516C

Primary probe  
 INVADER oligonucleotide  
 ARRESTOR oligonucleotide  
 FRET Probe  
 Secondary target

5'-CCG CCG AGA TCA CGA TGA TCT TGA GGC T-NH2-3'  
 5'-TGG TGC AGG AGG CAT TGC TC-3'  
 5'-CAG CGT CAA GAT TAC CGT GAT GT-3'  
 5'-RED-CTC (Z28) TTC TCA GTG CG-3'  
 5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'

(SEQ ID NO:182)  
 (SEQ ID NO:183)  
 (SEQ ID NO:184)  
 (SEQ ID NO:172)  
 (SEQ ID NO:173)



## hTGF- $\beta$

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC CAC GGC TC -3'  
5'-AGG CGA AAG CCC TCA ATT TCC CA -3'  
5'-AAC CAC TGC CGC ACA -3'  
5'-GAG CCG TGG AGG AGG CG -3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G -3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT -3'

## hMCP-1

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTT CGG AGT TTG GG NH2 -3'  
5'-GGG TTG TGG AGT GAG TGT TCA AGT A -3'  
NO STACKER  
5'-GGG-AAA-CTC-CGA-AGG- AGG-CG -3'  
5'-FL-CAC-Z28-TGC TTC GTG G -3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT -3'

## hTNF- $\alpha$

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC TCT GAC TGC CA NH2 -3'  
5'-TTG TCA CTC GGG GTT CGA GAA GAT GAA -3'  
5'-GGG CCA GAG GG -3'  
5'-AGG CAG TCA GAG AGG CG -3'  
5'-FL-CAC-Z28-TGC TTC GTG G -3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT -3'

## hIL-6

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC ATT GAA TTNH2 -3'  
5'-CCA AAA GTC CAG TGA TTT TCA CCA GGC AAG TA -3'  
5'-CAG ATT GGA AGC ATC CAT CT -3'  
5'-GAT TCA ATG AGG AGG AGG C -3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G -3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT -3'

(SEQ ID NO:185)  
(SEQ ID NO:186)  
(SEQ ID NO:187)  
(SEQ ID NO:188)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

(SEQ ID NO:191)  
(SEQ ID NO:192)  
(SEQ ID NO:193)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

(SEQ ID NO:194)  
(SEQ ID NO:195)  
(SEQ ID NO:196)  
(SEQ ID NO:197)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

(SEQ ID NO:198)  
(SEQ ID NO:199)  
(SEQ ID NO:200)  
(SEQ ID NO:201)  
(SEQ ID NO:189)  
(SEQ ID NO:190)



### hIL-1 $\beta$

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CAT CTG TTT AGG NH2-3'  
5'-CAG GTC CTG GAA GGA GCA CTT A-3'  
5'-GCC ATC AGC TTC TTT GTT GTT GTC ATC-3'  
5'-GCC CTA AAC AGA TGG AGG CG-3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:202)  
(SEQ ID NO:203)  
(SEQ ID NO:204)  
(SEQ ID NO:205)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

### hIL-2

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC CAG TTG TAG NH2-3'  
5'-AAA ATC ATC TGT AAA TCC AGC AGT AAA TGA-3'  
5'-CTG TGT TTT GTT TGT AGA AC-3'  
5'-CTA CAA CTG GAG GAG GC-3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:206)  
(SEQ ID NO:207)  
(SEQ ID NO:208)  
(SEQ ID NO:208)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

### hIL-8

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC TCA GTT CT-NH2-3'  
5'-GTG TGG TCC ACT CTC AAT CAA-3'  
5'-TTG ATA AAT TTG GGG TGG AAA GGT TTG GA-3'  
5'-AGA ACT GAG AGG AGG CG-3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:210)  
(SEQ ID NO:211)  
(SEQ ID NO:619)  
(SEQ ID NO:620)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

### hIL-10

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CAA ACT CAC TCA T-NH2-3'  
5'-GTC ATG TAG GCT TCT ATG TAG TTG ATG AAG ATG TA-3'  
5'-GGC TTT GTA GAT GCC TTT CTC TTG GA-3'  
5'-ATG AGT GAG TTT GGT GCG-3'  
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TGG TTT-3'

(SEQ ID NO:621)  
(SEQ ID NO:622)  
(SEQ ID NO:623)  
(SEQ ID NO:624)  
(SEQ ID NO:189)  
(SEQ ID NO:625)



#### hIL-4

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CTT GGA GGC A-NH<sub>2</sub>-3'  
5'-AAG GTT TCC TTC TCA GTT GTG TTA-3'  
5'-GCA AAG ATG TCT GTT ACG GTC AAC TC-3'  
5'-TGC CTC CAA GGT GCG C-3'  
5'-FL-CAC (Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:626)  
(SEQ ID NO:627)  
(SEQ ID NO:628)  
(SEQ ID NO:629)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

#### hIFN-γ

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CTT CAA AAT GCC TAA-NH<sub>2</sub>-3'  
5'-TGT CAC TCT CCT CTT TCC AAT TA-3'  
5'-GAA AAG AGT TCC ATT ATC CGC TAC ATC TG-3'  
5'-TTA GGC ATT TTG AAG GTG CGC-3'  
5'-FL-CAC (Z28)-TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:630)  
(SEQ ID NO:631)  
(SEQ ID NO:632)  
(SEQ ID NO:633)  
(SEQ ID NO:189)  
(SEQ ID NO:625)



## hCYP 1A2, 1193G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CGT TGT GTC CC-NH2-3'  
5'-GGG ATG TAG AAG CCA TTC AGA-3'  
5'-TTG TTG TGC TGT GGG GGA TG-3'  
5'-GGG ACA CAA CGG TGC GC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:634)  
(SEQ ID NO:635)  
(SEQ ID NO:636)  
(SEQ ID NO:637)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

## hCYP 2B6, 343G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CAC CAT ATC CC-NH2-3'  
5'-CCA GCG GTT TCC ATT GGC AAA GAT CAA-3'  
5'-CGG AAG AAT GGG TCG ACC ATG-3'  
5'-GGG ATA TGG TGG AGG CG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:638)  
(SEQ ID NO:639)  
(SEQ ID NO:640)  
(SEQ ID NO:641)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

## hCYP 2C19, 223G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CGT TCC AGG C-NH2-3'  
5'-CAT ATC CAT GCA GCA CCA CCA TGA-3'  
5'-CAA AAT ACA GAG TGA ACA CAG GGC C-3'  
5'-GCC TGG AAC GGT GCG C-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:642)  
(SEQ ID NO:643)  
(SEQ ID NO:644)  
(SEQ ID NO:645)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

## hCYP 2C9, 1554T

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC ATG GAT AAT GCC C-NH2-3'  
5'-CAG GTG AGA AAA GGC ATT ACA GAT AGT GAA AGC-3'  
5'-CAG AGG AAA GAG AGC TGC AGG G-3'  
5'-GGG CAT TAT CCA TGA GGC G-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:646)  
(SEQ ID NO:647)  
(SEQ ID NO:648)  
(SEQ ID NO:649)  
(SEQ ID NO:189)  
(SEQ ID NO:190)



## hCYP 2D6, 1316G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CCT GCT GAG AAA-NH<sub>2</sub>-3'  
5'-CCC GAG GCA TGC AGG GGG GA-3'  
5'-GGC AGG AAG GCC TCC-3'  
5'-TTT CTC AGC AGG GAG GCG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:650)  
(SEQ ID NO:651)  
(SEQ ID NO:652)  
(SEQ ID NO:653)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

## hCYP 3A4, 309C

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC GCG CCA CA-NH<sub>2</sub>-3'  
5'-CAG CAC AGG CTG TTG ACC ATC ATA AAA C-3'  
5'-CTT TTC CAT ACT TTT TAT GAC ATT C-3'  
5'-TGT GGG GCG AGG CG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:654)  
(SEQ ID NO:655)  
(SEQ ID NO:656)  
(SEQ ID NO:657)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

## hCYP 3A5 v2, 323T

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC AGT TGA CCT TC-NH<sub>2</sub>-3'  
5'-GTG ATG GCC AGC ACA GGG C-3'  
5'-ATA CGT TCC CCA CAT TTT TC-3'  
5'-TGA AGG TCA ACT GTG CGC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCG TCG TTT-3'

(SEQ ID NO:658)  
(SEQ ID NO:659)  
(SEQ ID NO:660)  
(SEQ ID NO:661)  
(SEQ ID NO:188)  
(SEQ ID NO:625)

## hCYP 3A7, 231C

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC GTC ATA AAT ACC CC-NH<sub>2</sub>-3'  
5'-GCC AGC ATA GGC TGT TGA CAC-3'  
5'-AGA CTT TTC TAT TAT TTT TAT AAC ATT C-3'  
5'-GGG GTA TTT ATG AGG TGC GC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCG TCG TTT-3'

(SEQ ID NO:662)  
(SEQ ID NO:663)  
(SEQ ID NO:664)  
(SEQ ID NO:665)  
(SEQ ID NO:189)  
(SEQ ID NO:625)



# h/rCYP 1A1 (human: 937, rat 863G)

Primary probe  
INVADER oligonucleotide (h)  
INVADER oligonucleotide (r)  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTG TCT GTG AT-NH2-3'  
5'-TCC TGA CAG TGC TCA ATG AGG A-3'  
5'-TCC TGA CAA TGC TCA ATG AGG A-3'  
5'-GTC CCG GAT GTG GCC C-3'  
5'-ATC ACA GAC AGG AGG CG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:666)  
(SEQ ID NO:667)  
(SEQ ID NO:668)  
(SEQ ID NO:669)  
(SEQ ID NO:670)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

# h/rCYP 1A2 (813C/819C)

Primary probe  
INVADER oligonucleotide (h)  
INVADER oligonucleotide (r)  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC GGA CTG TTT TCT GC-NH2-3'  
5'-CTT GTC AAA GTC GTG ATA GTG CTC CTC-3'  
5'-CTT GTT GAA GTC TTG ATA GTG TTC CTC-3'  
5'-GCA GAA AAC AGT CCG TGC GC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:671)  
(SEQ ID NO:672)  
(SEQ ID NO:673)  
(SEQ ID NO:674)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

# rCYP 2B1, 1017T

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC ACT GCG GTC AT-NH2-3'  
5'-GTG GAT AAC TGC ATC AGT GTA TGG CAT TTT C-3'  
5'-CAA GGG TTG GTA GCC TGT GTG AGC C-3'  
5'-ATG ACC GCA GTG AGG CG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:675)  
(SEQ ID NO:676)  
(SEQ ID NO:677)  
(SEQ ID NO:678)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

# rCYP 2B2, 162T

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC AGA GCC AAT CAC-NH2-3'  
5'-CGA TCA TCA AGG GAT GGT GGC CTG TGC-3'  
5'-CTG ATC AAT CTC CTT TTG GAC TTT CTC TGC G-3'  
5'-GTG ATT GGC TCT GAG GCG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:679)  
(SEQ ID NO:680)  
(SEQ ID NO:681)  
(SEQ ID NO:682)  
(SEQ ID NO:189)  
(SEQ ID NO:190)





## rCYP 2E1, 969G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC AAT TTC TG-NH2-3'  
5'-CCC TGT CAA TTT CTT CAT GAA GTT TA-3'  
5'-GGT ATT TCA TGA GGA TCA GGA GC-3'  
5'-CAG AAA TTG AAG AGG AGG CG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:683)  
(SEQ ID NO:684)  
(SEQ ID NO:685)  
(SEQ ID NO:686)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

## rCYP 3A1, 164G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC CGG GTC CCA-NH2-3'  
5'-TCC CCT GTT TCT TGA AAA GTC CAT GTG TGA-3'  
5'-AAT CCG TAG AGG AGC ACC AGG-3'  
5'-TGG GAC CCG GTG CGC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GGC TCG TTT-3'

(SEQ ID NO:687)  
(SEQ ID NO:688)  
(SEQ ID NO:689)  
(SEQ ID NO:690)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

## rCYP 3A2, 1091G

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-CCG TCA CGC CTC CTC GGC AGG-NH2-3'  
5'-CAC AAT ATC GTA GGT AGG AGG TGC CTT AA-3'  
5'-GCC CCA TCG ATC TCC TCC-3'  
5'-CCT GCC GAG GAG GCG-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:691)  
(SEQ ID NO:692)  
(SEQ ID NO:693)  
(SEQ ID NO:694)  
(SEQ ID NO:189)  
(SEQ ID NO:190)

## rCYP 4A1, 296A

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC TAG GCT TTG CT-NH2-3'  
5'-TTC ATG TAG TCA GGG TCA TAG ACA ATT AAG A-3'  
5'-TCC CCA GAA CCA TCG AGG AAA GG-3'  
5'-AGC AAA GCC TAG TGC GC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GGC TCG TTT-3'

(SEQ ID NO:695)  
(SEQ ID NO:696)  
(SEQ ID NO:697)  
(SEQ ID NO:698)  
(SEQ ID NO:189)  
(SEQ ID NO:625)



# **rCYP 4A2**

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC AGA AGG CCC CTT-NH2-3'  
5'-CCT TGA ACA GCA CCA GAA ATA GAC TGA GCA C-3'  
5'-GGA AGA ACC CAG AGA CAC CAT CC-3'  
5'-AAG GGG CCT TCT GTG CGC-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:699)  
(SEQ ID NO:700)  
(SEQ ID NO:701)  
(SEQ ID NO:702)  
(SEQ ID NO:189)  
(SEQ ID NO:625)

# **rCYP 4A3, 1235C**

Primary probe  
INVADER oligonucleotide  
Stacker  
ARRESTOR oligonucleotide  
FRET Probe  
Secondary target

5'-AAC GAG GCG CAC GTT GTG ATA CCT T-NH2-3'  
5'-GAT GAA GGC CAT AAA TTA AAC TTG TGC-3'  
5'-TGG GTA TGG AAC GTC C-3'  
5'-AAG GTA TCA CAA CGT GCG C-3'  
5'-FL-CAC (Z28) TGC TTC GTG G-3'  
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:703)  
(SEQ ID NO:704)  
(SEQ ID NO:705)  
(SEQ ID NO:706)  
(SEQ ID NO:189)  
(SEQ ID NO:625)



Figure 42

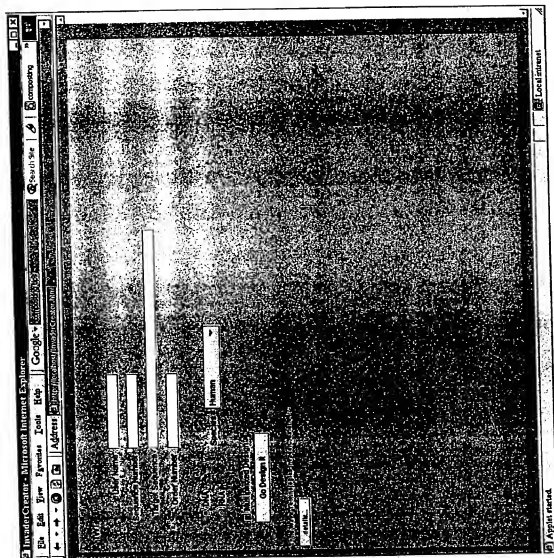




Figure 43

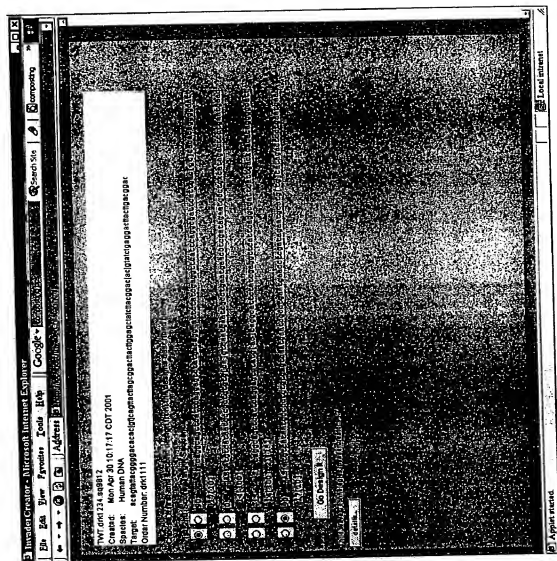
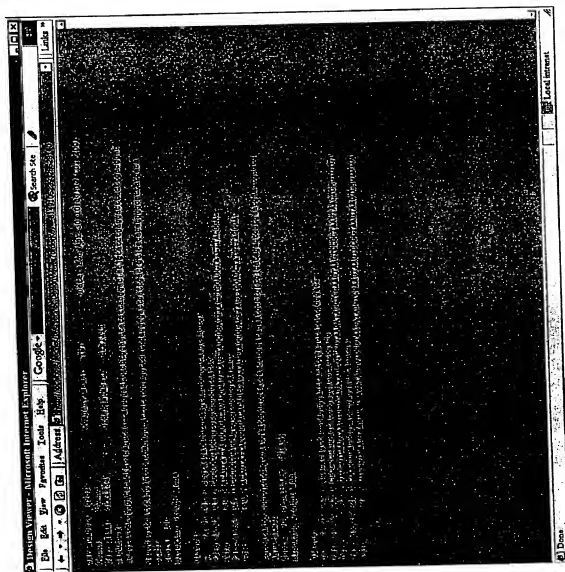








Figure 46





**FIGURE 47**

Oligo sequence descriptions: 5' to 3' direction, 2'-Ome nt's are bolded and underlined, internal modifications defined in ( )

Oligo Type	Oligo Sequence (5' to 3')	Modification	SEQ ID NO
hTNF- $\alpha$			
probe	ccg ccg aga tca ctc tga ctg cct NH2	3' Amine	709
invader	tig tca ctc ggg gtt cga gaa gat gaa		710
stacker	<u>ggg cca gag ggc tga tta g</u>	all 2'Ome bases	711
stacker	<u>ggg cca gag ggc tga tta g</u>	all 2'Ome bases	712
stacker	<u>ggg cca gag ggc tga at</u>	all 2'Ome bases	713
stacker	<u>ggg cca gag ggc t</u>	all 2'Ome bases	714
stacker	<u>ggg cca gag ga</u>	all 2'Ome bases	715
arrestor	agg cag tca gag tga tc	all 2'Ome bases	716
arrestor	agg cag tca gag tga tct g	all 2'Ome bases	717
SRT	cgaaagacgagttgtagctcgcgNH2	3' Amine	718
FRET probe	Fcaac(Cy3)gcttcctccg		719
probe	ccg tca cgc ctc tct gac tgc ct NH2	3' Amine	720
invader	tig tca ctc ggg gtt cga gaa gat gaa		721
stacker	<u>ggg cca gag ggc tga tta g</u>	all 2'Ome bases	722
arrestor	<u>agg cag tca gag agg cg</u>	all 2'Ome bases	723
SRT	cgaaagacgagttgtagcgcgNH2	3'base 2'Ome, 3'Amine	724
FRET probe	Fcaac(Cy3)gcttcctccg		725
probe	ccg tca cgc ctc tct gac tgc ctg gNH2	3' Amine	726
invader	tig tca ctc ggg gtt cga gaa gat gaa		727
arrestor	<u>cca ggc agt cag aga ggc g</u>	all 2'Ome bases	728
SRT	cgaaagacgagttgtagcgcgNH2	3'base 2'Ome, 3'Amine	729
FRET probe	Fcaac(Cy3)gcttcctccg		730
probe	ccg ccg aga tca ctc tga ctg cc NH2	3' Amine	731
invader	tig tca ctc ggg gtt cga gaa gat gaa		732
stacker	<u>tga gcc aga ggc cta att a</u>	all 2'Ome bases	733
arrestor	<u>agg cag tca gag tga tc</u>	all 2'Ome bases	734
SRT	cgaaagacgagttgtagcgcgNH2	3' Amine	735
FRET probe	Fcaac(Cy3)gcttcctccg		736
probe	ccg ccg aga tca ctc tga ctg NH2	3' Amine	737
invader	ctt gtc act cgg ggt tgg aga aga c		738







invader	cag gtc cgg gaa gga cca ctt a	all 2'Ome bases	772
stacker	gcc atc aac ttc ttt att ctt gtc atc	3'base 2'Ome, 3'Amine	773
SRT	cggaagacgacgagagcgagcgagcgtNH2		774
FRET probe	Fcaac(Cy3)gctctctccg		775
probe	ccg tca cgc ctc cca tca gct tcnH2	3' Amine	776
invader	gag cac ttc atc ttt tta ggg a		777
stacker	ttt ctt ctt atc atc atc att gcc ac	all 2'Ome bases	778
arrestor	gaa gct ggt ggg aag ag	all 2'Ome bases	779
SRT	cggaagacgacgagcgagcgagcggtNH2	3'base 2'Ome, 3'Amine	780
FRET probe	Fcaac(Cy3)gctctctccg		781
probe	ccgcgagatcacatcgttttagggcNH2	3' Amine	782
invader	ccgcgagatcacatcgttttagggcNH2	3' Amine	783
arrestor	caggctcggagagaccta		784
SRT	gcccctaaacatagatgactcNH2	all 2'Ome bases, 3' Amine	785
FRET probe	cggaagacgacgagcgagcgagcggtNH2	3' 2' last base 2' Ome, 3' Amine	786
	Fcaac(Cy3)gctctctccg		787
hcFOS	ccg tca cgc ctc cag cag gtt ggc NH2	3' Amine	788
invader	gct tga ccc agg gag gg		789
arrestor	gcc aag gtc ctg gag gcc	all 2'Ome bases	790
SRT	cggaagacgacgagcgagcgagcggtNH2	3'base 2'Ome, 3'Amine	791
FRET probe	Fcaac(Cy3)gctctctccg		792
probe	ccg tca cgc ctc cag cag gtt gg NH2	3' Amine	793
invader	gct tga ccc agg gag gg		794
stacker	caa tct cgg tct gca aag cag ac	all 2'Ome bases	795
arrestor	gcc aag gtc ctg gag gcc	all 2'Ome bases	796
SRT	cggaagacgacgagcgagcgagcggtNH2	3'base 2'Ome, 3'Amine	797
FRET probe	Fcaac(Cy3)gctctctccg		798
probe	ccg tca cgc ctc tca gca ggt tgg NH2	3' Amine	799
invader	act cte gtt ttt cct tct cct a		800
stacker	caa tct cgg tct gca aag cag ac	all 2'Ome bases	801
arrestor	cca acc tgc taa gag gcc	all 2'Ome bases	802
SRT	cggaagacgacgagcgagcgagcggtNH2	3'base 2'Ome, 3'Amine	803
FRET probe	Fcaac(Cy3)gctctctccg		804

hIL-6 probe invader arrestor SRT FRET probe	ccg ccg aga ctc ctc tca ttg aat cct NH2 ccg ccg aga ctc ctc tca ttg aat cct NH2 cca aaa gtc cag tga ttt tca cca ggc aag a agg att caa tga aga aga atg atc tNH2 cgaggagcagtgaggatcgcgggNH2 Fcaac(Cy3)gctctccg	3' Amine 3' Amine all 2'Ome bases, 3' Amine 3' 2 last base 2'Ome, 3' Amine	805 806 807 808 809 810
probe invader stacker arrestor SRT FRET probe	ccg tca cgc ctc ctc ctc att gaaNH2 cca gtc atg att ttc acc agg caa gta tcc aga ttg gaa gca tcc atc t ttc aat gaa gaa gaa gc cggaagcagtgaggaggggagcggNH2 Fcaac(Cy3)gctctccg	3' Amine all 2'Ome bases all 2'Ome bases 3'base 2'Ome, 3' Amine	811 812 813 814 815 816
probe invader stacker arrestor SRT FRET probe	ccg tca cgc ctc ctc ctc att gaaNH2 cca gtc atg att ttc acc agg caa gta atc cag att gaa agc atc cat ct ttc aat gaa gaa gaa gc cggaagcagtgaggaggggagcggNH2 Fcaac(Cy3)gctctccg	3' Amine all 2'Ome bases all 2'Ome bases 3'base 2'Ome, 3' Amine	817 818 819 820 821 822
probe probe probe invader stacker arrestor SRT FRET probe	ccg tca cgc ctc ctc ctc att gaa tNH2 ccg tca cgc ctc ctc ctc att gaa tNH2 ccg tca cgc ctc ctc ctc att gaa tNH2 cca aaa gtc cag tga ttt tca cca ggc aag ta cacatggaagcatccatct gattcaaggaggagggc ccaggagcagtgaggagggagcggau Fcaac(Zn1)gctctggg	3' Amine 3' Amine 3' Amine all 2'Ome bases all 2'Ome bases 3' 3bases 2'Ome	823 824 825 826 827 828 829 830
hMCP-1 probe probe invader arrestor SRT	ccg tca cgc ctc ctc cgc agt ttg gNH2 ccg tca cgc ctc ctc cgc agt ttg gNH2 ggg ttg tga agt gaa ttt tca agt a acc ccaaac tcc gaa ggc ggc atg NH2 cggaagcagtgaggaggggagcggNH2	3' Amine 3' Amine all 2'Ome bases 3'base 2'Ome, 3' Amine	831 832 833 834 835

FRET probe	Fcaac(Cy3)gctctctcgcg	836
probe	goc gtc acg cct ttg gtt tgc ttg tc NH2	837
probe	goc gtc acg cct ttg gtt tgc ttg tgc NH2	838
invader	tgacgtaggtggtcaagctctcgaga	839
arrestor	gacacgcaaaccccaagagcga	840
SRT	cggaagaacagctggagcgcgtagcgcNH2	841
FRET probe	Fcaac(Cy3)gctctctcgcg	842
probe	cct gtc tgg ctg cct tgg gag ttg ggg	843
probe	cct gtc tgg ctg cct tgg gag ttg gg	844
invader	ggg ttg agt gag tgt tca agt a	845
arrestor	ccc.aaa.ctc.cga.agg.cag.cg	846
SRT	cggaagaacagctggagcgcgtagcgcNH2	847
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggNH2	848
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggcagNH2	849
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggcagcagNH2	850
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggcagcagcagNH2	851
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggcagcagcagcagNH2	852
SRT	cggaagaacagctggagcgcgtagcgc(Amino dA)ggcagcagcagcagcagNH2	853
FRET probe	Fcaac(Cy3)gctctctcgcg	854
probe	goc gtc acg cct ctg gga cac ttg ctg cNH2	855
invader	goc aca atg gtc ttg aag atc aca cct tca	856
arrestor	cca.aaa.agg.gtc.tca.agg.ggc.cga.NH2	857
SRT	cggaagaacagctggagcgcgtagcgcNH2	858
FRET probe	Fcaac(Cy3)gctctctcgcg	859
probe	cgc tca cgc ctg cct cgg agt ttg gg NH2	860
invader	ggg ttg ttg agt gag tgt tca agt a	861
arrestor	5'-ggc-aaa-ctc-cga-agg-agg-agg-3'	862
SRT	ccaagaagaacagctggagcgcgtagcgcggg	863
FRET probe	Fcaac(Cy3)gctctctcgcg	864
probe	cgc cga gat cac cct cgg agt ttg ggNH2	865
invader	ggg ttg ttg agt gag tgt tca agt a	866
arrestor	ccc.aaa.ctc.cga.agg.tca.tc	867
SRT	cggaagaacagctggagcgcgtagcgcNH2	868
FRET probe	Fcaac(Cy3)gctctctcgcg	869
probe	goc gtc acg cct ctg gga cac ttg ctg cNH2	870
invader	goc aca atg gtc ttg aag atc aca cct tca	871
arrestor	cca.aaa.agg.gtc.tca.agg.ggc.cga.NH2	872
SRT	cggaagaacagctggagcgcgtagcgcNH2	873
FRET probe	Fcaac(Cy3)gctctctcgcg	874
probe	cgc tca cgc ctg cct cgg agt ttg gg NH2	875
invader	ggg ttg ttg agt gag tgt tca agt a	876
arrestor	5'-ggc-aaa-ctc-cga-agg-agg-agg-3'	877
SRT	ccaagaagaacagctggagcgcgtagcgcggg	878
FRET probe	Fcaac(Cy3)gctctctcgcg	879
probe	cgc cga gat cac cct cgg agt ttg ggNH2	880
invader	ggg ttg ttg agt gag tgt tca agt a	881
arrestor	ccc.aaa.ctc.cga.agg.tca.tc	882
SRT	cggaagaacagctggagcgcgtagcgcNH2	883
FRET probe	Fcaac(Cy3)gctctctcgcg	884
probe	goc gtc acg cct ctg gga cac ttg ctg cNH2	885
invader	goc aca atg gtc ttg aag atc aca cct tca	886
arrestor	cca.aaa.agg.gtc.tca.agg.ggc.cga.NH2	887
SRT	cggaagaacagctggagcgcgtagcgcNH2	888
FRET probe	Fcaac(Cy3)gctctctcgcg	889

3' Amine  
3' Amine

all 2'Ome bases  
3' 2 bases 2'Ome, 3' Amine

all 2'Ome bases  
3' last base 2'Ome, 3' Amine  
Amino dA modification  
Amino dA modification  
Amino dA modification  
Amino dA modification  
Amino dA modification  
Amino dA modification

3' Amine  
all 2'Ome bases, 3' Amine  
3' 2 bases 2'Ome, 3' Amine

3' Amine

all 2'Ome bases  
3' 3 bases 2'Ome

3' Amine

all 2'Ome bases  
3' Amine

probe	aac gag gag cac ctt cgg agt ttg gg NH2	3' Amine	870
invader	ggg ttg tgg agt gag tgt tca agt a	all 2'Ome bases	871
arrestor	ccc aaa ctc cga agg tgc g	3' last 5 bases 2'Ome, 3' Amine	872
SRT	cgggaagcagctggcgcctctgtaanNH2		873
FRET probe	Fcaac(Cy3)gctctctcg		874
probe	cgg tca cgc ctc ctt cgg agt ttg g NH2	3' Amine	875
invader	ggg ttg tgg agt gag tgt tca agt a	all 2'Ome bases	876
stacker	att tgc ttt tcc agt tgc	all 2'Ome bases	877
arrestor	cca aac tcc gaa gga ggc g	all 2'Ome bases	878
SRT	cgggaagcagctggcgcctctgtaanNH2	3' base 2'Ome, 3' Amine	879
FRET probe	Fcaac(Cy3)gctctctcg		880
probe	cgg tca cgc ctc ctt cgg agt ttg NH2	3' Amine	881
invader	ggg ttg tgg agt gag tgt tca agt a	all 2'Ome bases	882
stacker	att tta ctt ctc cag gta g	all 2'Ome bases	883
arrestor	cca aac tcc gaa gga ggc g	all 2'Ome bases	884
SRT	cgggaagcagctggcgcctctgtaanNH2	3' base 2'Ome, 3' Amine	885
FRET probe	Fcaac(Cy3)gctctctcg		886
probe	cgg tca cgc ctc ctt cgg agt ttNH2	3' Amine	887
invader	ggg ttg tgg agt gag tgt tca agt a	all 2'Ome bases	888
stacker	ggg ttt gct tgt tca ggt g	all 2'Ome bases	889
arrestor	cca aac tcc gaa gga ggc g	all 2'Ome bases	890
SRT	cgggaagcagctggcgcctctgtaanNH2	3' base 2'Ome, 3' Amine	891
FRET probe	Fcaac(Cy3)gctctctcg		892
probe	cgc tca cgc ctc ctt cgg agt ttNH2	3' Amine	893
invader	ggg ttg tgg agt gag tgt tca agt a	all 2'Ome bases	894
stacker	ggg ttt gct tgt tca ggt tca g	all 2'Ome bases	895
arrestor	ccc aaa ctc cgg agt g	all 2'Ome bases	896
SRT	cgggaagcagctggcgcctctgtaanNH2	3' base 2'Ome, 3' Amine	897
FRET probe	Fcaac(Cy3)gctctctcg		898
probe	cgc cga gat cac cgg agt ttg gNH2	3' Amine	899
invader	ggt gtt gag tga gtt ttc aag tat ta	all 2'Ome bases	900
stacker	ttt gct tgt tca agt ggt tca g	all 2'Ome bases	901
arrestor	cta gtt ggc tca aac tc	all 2'Ome bases	902
SRT	cgggaagcagctggcgcctctgtaanNH2	3' Amine	903
FRET probe	Fcaac(Cy3)gctctctcg		904







stacker	gaa ctt gaa gta ggt gca ctt tt	970	5' 3bases 2'Ome
stacker	gaa ctt gaa gta ggt gca ctt tt	971	5' 6bases 2'Ome
arrestor	tac aac aac aac aac ggt ggt ct	972	All 2'Ome
SRT	cggaagacgagtggtggtcgcggcggNH2	973	3' 2 last bases 2'Ome, 3' Amine
FRET probe	Fcaac(Cy3)gctctctcgcg	974	
probe	aac gag gcg cac cct tct tgg gca tgnNH2	975	3' Amine
invader	ttc tgg aca ctt aag atg ttt cag ttc ttt gga	976	
arrestor	cat tgc caa gaa cga tgc gttNH2	977	all 2'Ome bases
SRT	cggaagacgagtggtggtcgcgtttaaNH2	978	3' last 5 bases 2'Ome, 3' Amine
FRET probe	Fcaac(Cy3)gctctctcgcg	979	
probe	aac gag gcg cac taa ttc cat tca aaa tca tct	980	
invader	cat cct ggt ggt ttt gga att ctt gta att tat a	981	all 2'Ome bases, 3' Amine
stacker	gta aat tca aca cta cta aat cct cca gNH2	982	
arrestor	aga tga ttt tta ata gaa tta ata gttNH2	983	all 2'Ome bases, 3' Amine
SRT	cggaagacgagtggtggtcgcgtttaaNH2	984	3' last 5 bases 2'Ome, 3' Amine
FRET probe	Fcaac(Cy3)gctctctcgcg	985	
hil-4	cct gtc tgc cgt cca gtt gtt ttc tgg gag NH2	986	
probe	cct tgc aga agg ttt cct tct a	987	3' Amine
invader	cct tgc aga tgg ttt cct tct a	988	
arrestor	ctc caa gaa cac aac tgg cag cNH2	989	all 2'Ome bases, 3' Amine
arrestor	ctc caa gaa cac aac tgg cag cga NH2	990	all 2'Ome bases, 3' Amine
arrestor	ctc caa gaa cac aac tgg cag cga gNH2	991	all 2'Ome bases, 3' Amine
SRT	cggaagacgagtggtggtcgcgtttaaNH2	992	3' last base 2'Ome, 3' Amine
FRET probe	Fcaac(Cy3)gctctctcgcg	993	
probe	aac gag gcg cac ctt gga ggc agc aag NH2	994	3' Amine
probe	aac gag gcg cac ctt gga ggc agc aagNH2	995	3' Amine
invader	aag gtt ttc ttc ttc gtt gtt ttc	996	
arrestor	ctc tgc tgc ctc caa ggt ggc NH2	997	all 2'Ome bases, 3' Amine
SRT	cggaagacgagtggtggtcgcgtttaa NH2	998	3' last 5 bases 2'Ome, 3' Amine
FRET probe	Fcaac(Cy3)gctctctcgcg	999	
probe	cag tca cgt ctc tgg agg cag aag tgc NH2	1000	3' Amine
invader	aag gtt ttc ttc ttc gtt gtt ttc	1001	
arrestor	cat ctt tgc tgc ctc cag aag cga NH2	1002	all 2'Ome bases, 3' Amine





SRT	gdcagcagatgaaggacgagcagctgacgtgtaNH2	3' Amine	1003
FRET probe	Fcttc(Cy3)tcctcagtcac		1004
probe	aac gag ggc ccc ctt gga ggc agc aaa g NH2	3' Amine	1005
invader	aag gtt tcc tca gtt gtc tta		1006
arrestor	ctt tcc tcc ctc caa gtt ggc NH2	<b>all 2'Omne bases, 3' Amine</b>	1007
SRT	cgaggaagcagctggcgcctcgttaa	3' last 5 bases 2'Omne	1008
FRET probe	Fcaac(Cy3)gctctctccg		1009
<hr/>			
mIL-2			
probe	cgc cga gat cac ccc ttg agt ttt aca aca gNH2	3' Amine	1010
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1011
arrestor	act gtt gta aca cta aag ggc gtc atc t NH2	<b>all 2'Omne bases, 3' Amine</b>	1012
SRT	cgaggaagcagctggcgcctcgttaa	3' last two bases are 2' Omne , 3' Amine	1013
FRET probe	Fcaac(Cy3)gctctctccg		1014
probe	lgc cgc cga gat cac ccc ttg agt ttt aca aca gNH2	3' Amine	1015
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1016
arrestor	act gtt gta aca cta aag ggc gtc NH2	<b>all 2'Omne bases, 3' Amine</b>	1017
arrestor	act gtt gta aca cta aag ggc gtc at NH2	<b>all 2'Omne bases, 3' Amine</b>	1018
arrestor	act gtt gta aca cta aag ggc gtc at ctt NH2	<b>all 2'Omne bases, 3' Amine</b>	1019
arrestor	act gtt gta aca cta aag ggc gtc at ctt NH2	<b>all 2'Omne bases, 3' Amine</b>	1020
SRT	cgaggaagcagctggcgcctcgttaa	3' Last 2bases 2'Omne, 3' Amine	1021
FRET probe	Fcaac(Cy3)gctctctccg		1022
probe	gc cgc cga gat cac ccc ttg agt ttt aca aca gNH2	3' Amine	1023
invader	c gc cga gat cac ccc ttg agt ttt aca aca gNH2	3' Amine	1024
arrestor	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1025
SRT	act gtt gta aca cta aag ggc gtc at NH2	<b>all 2'Omne bases, 3' Amine</b>	1026
FRET probe	cgaggaagcagctggcgcctcgttaa	3' Last 2bases 2'Omne, 3' Amine	1027
	Fcaac(Cy3)gctctctccg		1028
probe	aac gag ggc ccc ttg agt ttt aca aca g NH2	3' Amine	1029
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga		1030
arrestor	act gtt gta aca cta aag ggc gtc NH2	<b>all 2'Omne bases, 3' Amine</b>	1031
SRT	cgaggaagcagctggcgcctcgttaa	3' last 5 bases 2'Omne	1032
FRET probe	Fcaac(Cy3)gctctctccg		1033
probe	aac gag ggc ccc ttg agt ttt aca aca g NH2	3' Amine	1034



invader	gaa ttg gca ctc aaa tgt gtc aga ga	all 2'Ome bases, 3' Amine	1035
arrestor	aat aac tat tat aaa aat aaa gag gtc ag NH2	3' last 5 bases 2'Ome	1036
SRT	cggaagaagcagtggtggcgtctgttaa		1037
FRET probe	Fcaac(Cy3)gctctccgcg		1038
probe	cgctacgcctcccttgattttacaacNH2	3' Amine	1039
invader	gaa ttg gca ctc aaa tgt gtc aga ga		1040
stacker	agt tac tat gct att gct gat gaa att ctc ag	all 2'Ome bases,	1041
arrestor	gttgaataactaaagggagagcg	all 2'Ome bases,	1042
SRT	cggaagaagcagtggtggcgtgacgggNH2	3' base 2'Ome, 3' Amine	1043
FRET probe	Fcaac(Cy3)gctctccgcg		1044
probe	cgcgagatcaccccttgattttacaacNH2	3' Amine	1045
invader	gaa ttg gca ctc aaa tgt gtc aga ga		1046
stacker	agt tac tat gct att gct gat gaa att ctc ag	All 2'Ome	1047
arrestor	gttgaataactaaagggagagcg	All 2'Ome	1048
SRT	cggaagaagcagtggtggcgtgacgggNH2	3' Amine	1049
FRET probe	Fcaac(Cy3)gctctccgcg		1050
probe	cgctacgcctcccttgattttacaacNH2	3' Amine	1051
invader	gaa ttg gca ctc aaa tgt gtc aga ga		1052
stacker	caacttacttgatgtgctgagaaattctca	All 2'Ome	1053
arrestor	gttgaataactaaagggagagcg	All 2'Ome	1054
SRT	cggaagaagcagtggtggcgtgacgggNH2	3' base 2'Ome, 3' Amine	1055
FRET probe	Fcaac(Cy3)gctctccgcg		1056
probe	cgctacgcctcccttgattttacaacNH2	3' Amine	1057
invader	gaa ttg gca ctc aaa tgt gtc aga ga		1058
stacker	caacttacttgatgtgctgagaaattctca	All 2'Ome	1059
arrestor	gttgaataactaaagggagagcg	All 2'Ome	1060
SRT	cggaagaagcagtggtggcgtgacgggNH2	3' 2 bases 2'Ome, 3' Amine	1061
FRET probe	Fcaac(Cy3)gctctccgcg		1062
<hr/>			
mIL-10	ccg tca cgc ctc cag tta gct aag at NH2	3' Amine	1063
probe	cga tgg ttt tca agg agt tgt tta		1064
invader	ccc tgg atc aga ttt aga gag c	all 2'Ome bases,	1065
stacker	atc tta gct aac ggg agg ag	all 2'Ome bases,	1066
arrestor	cggaagaagcagtggtggcgtgacgggNH2	3' base 2'Ome, 3' Amine	1067
SRT			

FRET probe	Fcac(Cy3)gctctccg	1068
probe	cgc tca cgc ctc agt ttc ttc ggt NH2	1069
invader	aga ggt aca aac gag gtt ttc caa ggc	1070
stacker	aga tta ggt acc tca atc aga ttt aga ga	1071
arrestor	aac gga aac aac tga ggc g	1072
SRT	ccaggagcagggggggcgcgcg	1073
FRET probe	Fcac(Z21)gctctgig	1074
probe	cgc tca cgc ctc cgc tta ggt aNH2	1075
invader	caa acg agg ttt tcc aag gag tta a	1076
stacker	aga tcc ctc ggt cag att tag aga gct c	1077
arrestor	tag cta acd gaa aga ggc g	1078
SRT	ccaggagcagggggggcgcgcg	1079
FRET probe	Fcac(Z21)gctctgig	1080
probe	cgc tca cgc ctc cgc tta gNH2	1081
invader	aga ggt aca aac gag gtt ttc caa gga ga	1082
stacker	cta aga tcc ctc ggt cag att tag aga g	1083
arrestor	ctaaggaaacaagggc	1084
SRT	ccaggagcagggggggcgcgcg	1085
FRET probe	Fcac(Z21)gctctgig	1086
hFN-γ		
probe	aac gag ggc cac ctt acc aat ggc taa gaa gag NH2	1087
invader	tgc att att ttc ttc tca ctc ttc ttc caa tta	1088
arrestor	aac ttt ttt agt cgt ttt gaa ggt ggc NH2	1089
SRT	ccaggagcagggggggcgcgcg	1090
FRET probe	Fcac(Cy3)gctctccg	1091
probe	cgc tca cgc ctc ttc tca aaa tgc cta aga aag NH2	1092
invader	tct gaa tta ttc tgc ctc ttc ttc ttc aal a	1093
arrestor	act ctt ttc tta ggc att tta aga aga ggc NH2	1094
SRT	gctctgaagcagggggggcgcgcg	1095
FRET probe	Fcac(Cy3)gctctgig	1096
mFN-γ		
probe	aac gag ggc cac cct ttt ggc agt tcc NH2	1097
3' Amine		
3' Amine		
all 2'Omne bases, 3' Amine		
all 2'Omne bases, 3' Amine		
3' bases 2'Omne		
3' Amine		
all 2'Omne bases, 3' Amine		
all 2'Omne bases, 3' Amine		
3' bases 2'Omne		
3' Amine		
All 2'Omne		
All 2'Omne		
3' bases 2'Omne		
3' Amine		
3' Amine		
all 2'Omne bases, 3' Amine		
all 2'Omne bases, 3' Amine		
3' last 5 bases 2'Omne		
3' Amine		
all 2'Omne bases, 3' Amine		
all 2'Omne bases, 3' Amine		
3' Amine		
3' Amine		



invader	gct ctg cag gat ttt cat gtc acc ata	all 2'Omase bases.3' Amine	1098
arrestor	gag aag ctg gca aaa ggg tgc gNH2	all 2'Omase bases.3' Amine	1099
SRT	gctctgagatagagagagctgactgaNH2		1100
FRET probe	Fctac(Cy3)gctcagtagc		1101
probe	aac gag ggc cgc cct ttt gcc agt NH2	3' Amine	1102
invader	gct ctg cag gat ttt cat gtc acc ata		1103
stacker	tcc tcc aga tat cca aga aga gac tc	all 2'Omase bases	1104
arrestor	act ggc aaa aga cgg ggc	all 2'Omase bases	1105
SRT	cgg agg aag cag ttg gtc ctc gtu aa NH2	3' last 5 bases 2'Omase	1106
SRT	cgg aag aag cag ttg gtc ctc gtu aa NH2	3' last 5 bases 2'Omase	1107
FRET probe	Fcaac(Cy3)gctctccg		1108
probe	gcc gca cgc cgc ctt ttg cca gt NH2	3' Amine	1109
invader	gct ctg cag gat ttt cat gtc acc ata		1110
stacker	tcc tcc aga tat cca aga aga gac tc	all 2'Omase bases	1111
arrestor	act ggc aaa aga cgg ggc	all 2'Omase bases	1112
SRT	cgg agg aag cag ttg cgg cgt ggc gca NH2		1113
FRET probe	Fcaac(Cy3)gctctccg		1114
probe	aac gag ggc cgc cct ttt gcc agt tc NH2	3' Amine	1115
invader	gct ctg cag gat ttt cat gtc acc ata		1116
stacker	ctc cag ata tcc aag aag aga ctc	all 2'Omase bases	1117
arrestor	gaa ctg cca aaa ggg tgc g	all 2'Omase bases	1118
SRT	cggagagagcagttggtgcgtctgttaanNH2	3' last 5 bases 2'Omase	1119
FRET probe	Fcaac(Cy3)gctctccg		1120
hll-3			
probe	ccg tea cgc ctc ctt ggc aaa act gca codNH2	3' Amine	1121
probe	ccg tea cgc ctc ctt ggc aaa act gca codNH2	3' Amine	1122
invader	ctt ttt gca ctg aca tct aag ttc ttt agc act ca		1123
arrestor	tgc tgc agt ttt gca aag gag cga NH2	all 2'Omase bases.3' Amine	1124
arrestor	tgc tgc agt ttt gca aag gag cga tc NH2	all 2'Omase bases.3' Amine	1125
SRT	cggagagcagttggtgcgtctgttaanNH2	3' last 5 bases 2'Omase	1126
FRET probe	Fcaac(Cy3)gctctccg		1127
probe	ccg tea cgc ctc ctt ggc aaa act gca codNH2	3' Amine	1128
probe	ccg tea cgc ctc ctt ggc aaa act gca codNH2	3' Amine	1129
invader	agt gtt gaa gta gat ttt gaa gtt tca ctg ga		1130



stacker	gac aac aca gag aat gaa ttt	all 2'Ome bases	1131
arrestor	tcc aag aat cag tga tga tgg aag cgt gNH2	all 2'Ome bases, 3' Amine	1132
arrestor	tcc aag aat cag tga tga tga tgg aag cgt gNH2	all 2'Ome bases, 3' Amine	1133
arrestor	g aat cag tga tga tgg aag cgt gNH2	all 2'Ome bases	1134
FRET probe	cggaagacagctggagcggtgacggcNH2	3'2 bases 2'Ome, 3'Amine	1135
SRT	Fcaac(Cy3)gctctctcg		1136
probe	cgg tca cgc cct tgg ctc aat ttt gct gNH2	3' Amine	1137
invader	cca ttc aat ttc tga aat taa agt tgg aat ctc ttc tga	5' 10 bases are 2'Ome	1138
invader	cc tga aat taa agt tgg aat ctc ttc tga		1139
arrestor	cc tga aat taa agt tgg aat ctc ttc tga	all 2'Ome bases, 3' Amine	1140
arrestor	agg aaa att gaa cca aag gag aag cgt gNH2	all 2'Ome bases, 3' Amine	1141
SRT	agg aaa att gaa cca aag gag aag cgt gNH2	all 2'Ome bases, 3' Amine	1142
FRET probe	cggaagacagctggagcggtgacggcNH2	3'2 bases 2'Ome, 3'Amine	1143
	Fcaac(Cy3)gctctctcg		1144
probe	cgg tca cgc ctc ctt ctc ttc ttc ttc gNH2	3' Amine	1145
invader	ttc ttc gaa acc cct tca att cct gaa att aaa gtt cgg ala ttc ta	5' 10 bases 2'Ome	1146
invader	cc cct tca att cct gaa att aaa gtt cgg ala ttc ta		1147
arrestor	cc cct tca att cct gaa att aaa gtt cgg ala ttc ta		1148
SRT	cca aag gcc aag gag aag cgt gNH2	3'2 bases 2'Ome, 3'Amine	1149
FRET probe	cggaagacagctggagcggtgacggcNH2		1150
	Fcaac(Cy3)gctctctcg		1151
probe	cgg tca cgc ctc ctt ctc ttc ttc ttc gNH2	3' Amine	1152
invader	agt gtt gaa gta gtt gtt gtt gtt tca cgt gta	all 2'Ome bases	1153
stacker	tgc gac aac aca gag aat gaa tt	3'base 2'Ome, 3'Amine	1154
SRT	cggaagacagctggagcggtgacggcNH2		1155
FRET probe	Fcaac(Cy3)gctctctcg		1156
probe	cgg tca cgc ctc ctt ctc ttc ttc ttc gNH2	3' Amine	1157
invader	agt gtt gaa gta gtt gtt gtt gtt tca cgt gta		1158
stacker	ctt cga tac cac aca gaa tga att	3'base 2'Ome, 3'Amine	1159
SRT	cggaagacagctggagcggtgacggcNH2		1160
FRET probe	Fcaac(Cy3)gctctctcg		1161
probe	cgg tca cgc ctc ctt ctc ttc ttc ttc gNH2	3' Amine	1162
invader	agt gtt gaa gta gtt gtt gtt gtt tca cgt gta	all 2'Ome bases	1163
helper	ata-cca-cag-aga-aat-ttt-att-ttt-att	all 2'Ome bases, 3' Amine	1164
arrestor	tcc aag aat cag tga tga tgg aag cgt gNH2		1165



SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3'base 2'Ome, 3'Amine	1166 1167
SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3' Amine	1168 1169
SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3'base 2'Ome, 3'Amine	1170 1171
SRT FRET probe	ccaggagaagcagctggagcgtgacggt Fcaac(Cy3)gtctctccg	3' 3bases 2'Ome	1172 1173
SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3' 2 last base 2'Ome, 3' Amine	1174 1175
SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3'2 bases 2'Ome, 3'Amine	1176 1177
SRT FRET probe	ccaggagaagcagctggagcgtgacggttt Fcaac(Cy3)gtctctccg	3' last 3 bases 2'Ome	1178 1179
SRT FRET probe	cggagaagcagctggagcgtgacggtttNH2 Fcaac(Cy3)gtctctccg	3' last5 bases 2'Ome	1180 1181
SRT FRET probe	cggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3' Last 2bases 2'Ome, 3' Amine	1182 1183
SRT FRET probe	gctctgagagagaagcagcgtgacgtgNH2 Fcttc(Cy3)ctcagtagc	3' Amine	1184 1185
SRT FRET probe	ccaggagaagcagctggagcgtgacggtNH2 Fcaac(Cy3)gtctctccg	3' 2 bases 2'Ome, 3'Amine	1186 1187
h3A4 probe h3A4 invader Capture Sequence	agg agc cac tcc att gga tga agc atg tac aga atc ccc ggt tat tta tgc aga		1188 1189

Set 1



h3A4 probe  
h3A4 invader  
Capture Sequence

gig ggc tat cac aga caa tga gag  
cct cct tta tat toc caa gta taa cac tct aa

1190  
1191

Set 2/Set 3

h3A4 probe  
h3A4 arrestor  
h3A4 invader  
h3A4 stacking oligo  
h3A4 stacking oligo  
SRT  
FRET Oligo

AAC GAG GCG CAC CAC AGA CAA TGA GAG  
CCTCATGTCTGTGGTGGCG-NH2  
cct cct tta tat toc caa gta taa cac tct aa  
agcgaatgcatgacagatccctgg  
aactaatgcatgacagatccctgg

1192  
1193  
1194  
1195  
1196

Set 4

h3A4 probe  
h3A4 arrestor  
h3A4 invader  
h3A4 stacking oligo  
SRT  
FRET Oligo

aac gag ggc cac cac aga caa tga gag ag-NH2  
ctc tct cat tat cta tga tgc g-NH2  
cct cct tta tat toc caa gta taa cac tct aa  
ctc aat gct tgt aca gaa tcc ccg att

1197  
1198  
1199  
1200

Set 5

h3A4 probe  
h3A4 arrestor  
h3A4 invader  
SRT  
FRET probe

aac gag ggc cac cac aga caa tga gag agc t-NH2  
aac tct ctc att atc tgt ggt ggc-NH2  
cct cct tta tat toc caa gta taa cac tct aa  
FL-caa-c(cy3)g-ctt-ccf-cgg

1201  
1202  
1203  
1204

Set 6

h3A4 probe  
h3A4 arrestor  
h3A4 invader  
SRT  
FRET probe

aac gag ggc cac cac aga caa tga gag agc-NH2  
gct ctc tca tgc tct gtc gtc ggc-NH2  
cct cct tta tat toc caa gta taa cac tct aa  
FL-caa-c(cy3)g-ctt-ccf-cgg

1205  
1206  
1207  
1208

Set 7/Set 8

h3A4 probe  
h3A4 arrestor  
h3A4 stacking oligo

aac gag ggc cac cac aga caa tga gag a-NH2  
aac gag ggc cac cac aga caa tga gag a  
tct ctc att atc tgt ggt ggc c-NH2  
gct caa tgc atg tac aga atc ccc ggt t

1209  
1210  
1211  
1212







h3A4 probe  
h3A4 probe  
h3A4 arrestor  
h3A4 invader  
h3A4 stacking oligo  
SRT  
FRET

1233  
1234  
1235  
1236  
1237

Set 1  
h3A4 probe  
h3A4 arrestor  
h3A4 invader  
h3A4 stacking oligo  
SRT  
FRET

1238  
1239  
1240  
1241

Set 2  
h3A4 probe  
h3A4 arrestor  
h3A4 invader  
h3A4 stacking oligo  
SRT  
FRET

1242  
1243  
1244  
1245

Set 1  
h3A5 probe  
h3A5 invader  
Capture Sequence

1246  
1247

Set 2/Set 3  
h3A5 probe  
h3A5 probe  
h3A5 arrestor  
h3A5 invader  
SRT  
FRET

1248  
1249  
1250  
1251

Set 4  
h3A5 probe  
h3A5 arrestor

1252  
1253



1254  
1255

h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1256  
1257  
1258  
1259

Set 5  
h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1260  
1261  
1262  
1263

Set 6  
h3A5 probe  
h3A5 arrestor  
h3A5 invader  
SRT  
FRET probe

1264  
1265  
1266  
1267  
1268  
1269

Set 7/Set 8  
h3A5 probe  
h3A5 probe  
h3A5 arrestor  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1270  
1271  
1272  
1273

Set 9  
h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1274

Set 10  
h3A5 probe



h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

taa aat taq aca cgg tgc gc  
ggg ttt tct ggt tga aga agt cct tga  
agg gga tct ggg ttt ct

1275  
1276  
1277

Set 1

h3A5 probe  
h3A5 invader  
Capture Sequence

tgg cgt atc tga ccc ttt ggg aat  
gag gag cat aag ttg gaa tca cca cca ta

1278  
1279

Set 1

h3A5 probe  
h3A5 invader  
Capture Sequence

ata cgg ttg gtc ctc tca atg cta  
ccc cat tga ttt caa cat ctt tct tgc aac

1280  
1281

Set 2/Set 3

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

aac gag ggg cac ggt tgt cta att tc - NH2  
gaa att aga cac ggg tgc gc  
ggg ttt tct ggt tga aga agt cct tc  
cgg ggg atc tgt att tc

1282  
1283  
1284  
1285

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

cgg tca cgc ctc gcg tgt cta att tc -NH2  
gaa att aga cac acc agc cg  
ggg ttt tct ggt tga aga agt cct tc  
cgg ggg atc tgt att tc

1286  
1287  
1288  
1289

Set 1

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

aac gag ggg cag ttc ata cgt tcc -NH2  
gga acc tat gaa cta cgc  
cca gca cag gga gtt gac ca  
cca cat ttt tcc ata att t

1290  
1291  
1292  
1293

Set 2



h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1284  
1295  
1296  
1297

ccg tca cgc ctg ttc ata cgt tcc -NH2  
gga acg tat gaa cag ggc  
cca gca cag gga gtt gac ca  
cca cat ttt tcc ata ctt t

#### Set 1-Set 4

h3A5 probe  
h3A5 probe  
h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1298  
1299  
1300  
1301  
1302  
1303  
1304

aac gag ggc cac agt tga cct tca  
aac gag ggc cac agt tga cct tca  
tga agg tca act atg cgc  
gtg atg gcc agc aca ggc c  
tac att ccc cac att ttt c  
tac gtt ccc cac att ttt c

#### Set 5

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1305  
1306  
1307  
1308

ccg tca cgc ctg agt tga cct tca  
tga agg tca act gag ggc  
gtg atg gcc agc aca ggc c  
tac gtt ccc cac att ttt c

#### Set 6

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

1309  
1310  
1311  
1312

aac gag ggc cac tcc tct caa gt -NH2  
act tga gag gag tcc gc  
cca ttg att tca aca tct ttg caa ga  
cta ata gca act ggc aat aat c

#### Set 7

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT

1313  
1314  
1315  
1316

ccg tca cgc ctg tcc tct caa gt -NH2  
act tga gag gag agc cg  
cca ttg att tca aca tct ttg caa ga  
cta ata gca act ggc aat aat c



# FRET

## Set 8

h3A5 probe  
h3A5 arrestor  
h3A5 invader  
h3A5 stacking oligo  
SRT  
FRET

aac gag ggg cac agt tga cct tc - NH2  
tga agg tca act ggg cgg  
gig alg gcc aac aca ggg c  
ata cgt tcc cca cat ttg tc

1317  
1318  
1319  
1320

## Set 1

h3A7 Probe  
h3A7 Invader  
Capture Oligo

tgg cgt atc tgg att aaa tct taa aag  
gac ttt tat tga gag aac gaag tgg atc taa a

1321  
1322

## Set 2

h3A7 Primary Probe  
h3A7 Invader  
h3A7 Arrestor  
SRT  
FRET

AACGAGCGCACTGGATTAAATCTTAAAG  
gac ttt tat tga gag aac gaag tgg atc taa a  
CTTTAAGATTAAATCCAGTGG-NH2

1323  
1324  
1325

## Set 3

h3A7 Primary Probe  
h3A7 Invader  
h3A7 Arrestor  
h3A7 Stacking Oligo  
SRT  
FRET

AACGAGCGCACTGGATTAAATCTTAAAG  
gac ttt tat tga gag aac gaag tgg atc taa a  
CTTTAAGATTAAATCCAGTGG-NH2  
ctt ctt ggt gtt ttc ca

1326  
1327  
1328  
1329

## Set 4

h3A7 Probe  
h3A7 Invader  
Capture Oligo

agg agc cac tca tcc ctt gac t  
ctt agg gaag atc agg ctc cac tta cgg ta

1330  
1331

## Set 5/Set 6

h3A7 Primary Probe  
h3A7 Invader  
h3A7 Arrestor  
h3A7 Stacking Oligo

AACGAGCGCACTTCATCCCTTGACT  
AACGAGCGCACTTCATCCCTTGACT-NH2  
AGTCAAGGATGAGGTGG-NH2  
ctt agg gaag atc agg ctc cac tta cgg ta

1332  
1333  
1334  
1335



SRT  
FRET

Set 7 - Set 10

h3A7 Primary Probe  
h3A7 Arrestor  
h3A7 Invader oligo  
h3A7 Stacking Oligo  
h3A7 Stacking Oligo  
h3A7 Stacking Oligo  
h3A7 Stacking Oligo  
SRT  
FRET

aac gag gcc cac ctc atc cct tga c-NH2  
ctc aag gga tga ggt gcc c-NH2  
ctt agg gaa atc agg ctc cac tta cgg ta  
tca gcc tt agc aca agt ggt tt tct gtt agt  
tca gcc tt agc aca agt ggt tt tct g  
ctc aac ctt tag aac aat ggg tt ttc t  
ctc agc ctt tag aac aat ggg tt ttc t

Set 11

h3A7 Primary Probe  
h3A7 Primary Probe  
h3A7 Arrestor  
h3A7 Invader oligo  
h3A7 Stacking Oligo  
SRT  
FRET

aac gag gcc cac ctc atc cct tga-NH2  
aac gag gcc cac ctc atc cct tga c  
tca agg aat gag ggt gcc-NH2  
ctt agg gaa atc agg ctc cac tta cgg ta  
ctc agc ctt tag aac aat ggg tt ttc tct tag

Set 1

h3A7 Probe  
h3A7 Invader  
Capture Sequence

ata cgg ttg cta aag taa ttt gag gt  
gaa gcc cgt ctt cat ttc agg gtt cta ttt c

Set 2

h3A7 Primary Probe  
h3A7 Invader  
h3A7 Arrestor  
SRT  
FRET

AACGAGGCGCACGTAAAGTAATTGAGGT  
gaa gcc cgt ctt cat ttc agg gtt cta ttt c  
ACCTCAAAATTACTTTTACGTGGG-NH2

Set 3

h3A7 Primary Probe  
h3A7 Invader  
h3A7 Arrestor  
h3A7 Stacking Oligo

AACGAGGCGCACGTAAAGTAATTGAGGT  
gaa gcc cgt ctt cat ttc agg gtt cta ttt c  
ACCTCAAAATTACTTTTACGTGGG-NH2  
ctc tgg tgt tct ggg

1336  
1337  
1338  
1339  
1340  
1341  
1342

1343  
1344  
1345  
1346  
1347

1350  
1351  
1352

1353  
1354  
1355  
1356



SRT  
FRET

Set 1

h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

cgc tca cgc ctc gtc ata aat acc cc - NH2  
**ggc gtc ttt aag agc agc agc**  
ggc agc ata ggc tgc tgc cac  
**aga ctt ttc tat act ttt tat aac att g**

1357  
1358  
1359  
1360

Set 2 - Set 4

h3A7 probe  
h3A7 probe  
h3A7 probe  
h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

aac gag ggc cgc gtc ata aat acc cc - NH2  
aac gag ggc cgc gtc ata aat acc cc  
aac gag ggc cgc gtc ata aat acc cc - HEX  
**ggc gta ttt aag agc tgc gc**  
ggc agc ata ggc tgc tgc cac  
**aga ctt ttc tat act ttt tat aac att g**

1361  
1362  
1363  
1364  
1365  
1366

Set 1

h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

cgc tca cgc ctc gat taa atc tta aaa gct t - NH2  
**aag ctt tta aga ttt aat cga ggc g**  
gac ttt tat tgc gag aac gaa tgg atc taa tgc  
**ctt ggt gtt ttc cac aaa g**

1367  
1368  
1369  
1370

Set 2

h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

aac gag ggc cgc gat taa atc tta aaa gct t - NH2  
**aag ctt tta aga ttt aat cgt ggc g**  
gac ttt tat tgc gag aac gaa tgg atc taa tgc  
**ctt ggt gtt ttc cac aaa g**

1371  
1372  
1373  
1374

Set 1

h3A7 probe  
h3A7 arrestor

cgc tca cgc ctg tca tcc ctt g - NH2  
**caa ggc atg cac ggc g**

1375  
1376



1377  
1378

gga aat cag gct caa ctt aag gtc a  
act cag cct tta gaa caa tg

h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

Set 1

ccg tca cgc ctc taa agt aat ttg agg tc-NH2  
gac ctc aaa tta ctt tag agg cg  
cgt ctt cat ttc agg gtt cta ttt ga  
tct agt gtt ctg gg

h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

1379  
1380  
1381  
1382

Set 2

aac gag ggc cac taa agt aat ttg agg tc - NH2  
gac ctc aaa gaa ctt tag tgc gc  
cgt ctt cat ttc agg gtt cta ttt ga  
tct agt gtt ctg gg

h3A7 probe  
h3A7 arrestor  
h3A7 invader  
h3A7 stacking oligo  
SRT  
FRET

1383  
1384  
1385  
1386

Set 1

tgg-cgt-att-tag-gct-ttg-ctt-cc  
ttc atg tag tca ggg tca tag aca att aag a

r4A1 Probe  
r4A1 invader  
Capture Sequence

1387  
1388

Set 2

AACGAGGGGCACTAGGCTTTGCTTCC  
GGAGGCAAGGCTAGTGCG-NH2  
gaa agc aaa gcc tag tgc gc-NH2  
ttc atg tag tca ggg tca tag aca att aag a

r4A1 Primary Probe  
r4A1 Arrestor  
r4A1 Arrestor  
r4A1 invader  
FRET Probe 1

1389  
1390  
1391  
1392

Set 3

aac gag ggc cac tag gct ttg ctt ccc-NH2  
ggg aag caa agc cta atg cgc-NH2  
ttc atg tag tca ggg tca tag aca att aag a

r4A1 Primary Probe  
r4A1 Arrestor  
r4A1 invader  
SRT  
FRET Probe 1

1393  
1394  
1395





Set 4  
 r4A1 Primary Probe  
 r4A1 Arrestor  
 r4A1 Stack  
 r4A1 Invader  
 SRT  
 FRET Probe 1

aac gag ggg cac tag gct ttg ctt c-NH2  
 gaa gca aag cct aat cgc c  
 ccc aga acc atc gag gaa agg c  
 ttc atg tag tca ggg tca tag aca att aag a

1396  
 1397  
 1398  
 1399

Set 5  
 r4A1 Primary Probe  
 r4A1 Arrestor  
 r4A1 Invader  
 r4A1 Stack  
 r4A1 Stack  
 SRT  
 FRET Probe 1

aac gag ggg cac tag gct ttg ctt-NH2  
 aag caa agc cta gtc cgc-NH2  
 ttc atg tag tca ggg tca tag aca att aag a  
 ccc cag aac cat cga gga aag g  
 ccc tag aac cat cga gga aag g

1400  
 1401  
 1402  
 1403  
 1404

Set 6  
 r4A1 Primary Probe  
 r4A1 Primary Probe  
 r4A1 Probe  
 r4A1 Arrestor  
 r4A1 Arrestor  
 r4A1 Invader  
 r4A1 Stack  
 r4A1 Stack  
 SRT  
 FRET Probe 1

aac gag ggg cac tag gct ttg ct-NH2  
 aac gag ggg cac tag gct ttg ct - HEX  
 aac gag ggg cac tag gct ttg ct  
 agc aaa acc tag ttc acc-NH2  
 agc aaa acc tag ttc acc  
 ttc atg tag tca ggg tca tag aca att aag a  
 tcc cca gaa cca tgg agg aaa gg  
 tcc cca gaa cca tgg agg aaa gg

1405  
 1406  
 1407  
 1408  
 1409  
 1410  
 1411  
 1412

Set 1  
 r4A1 Probe  
 r4A1 Invader  
 Capture Sequence

ata cgg ttg gtc ttg acc tgc c  
 agg aga tat gtt gaa aga ttt cta tag agg ac

1413  
 1414

Set 2  
 r4A1 Primary Probe  
 r4A1 Arrestor  
 r4A1 Invader

AACGAGGCGCACGTCTTGACCTGCC  
 GGCAGTCAAGACGTGCG-NH2  
 agg aga tat gtt gaa aga ttt cta tag agg ac

1415  
 1416  
 1417



SRT  
FRET Probe 1

Set 3

r4A1 Primary Probe AACGAGGGGCACGCTTTGACCTGC-PI  
r4A1 Arrestor GGCAGGTCAAGACGTGGG-NH2  
r4A1 Invader egg aga tat gtt gaa aga ttt cta tag agg ac  
SRT  
FRET Probe 1

1418  
1419  
1420

Set 1

r4A1 Probe tgg cgt atc tta gat gga gta agg a  
r4A1 Invader att cct cat aat tca aaa ggg act tag tag gt

1421  
1422

Set 2

r4A1 Primary Probe AACGAGGGGCACCTTAGATGGAGTAAGGA  
r4A1 Arrestor TGGTTACTGCGATGTAAGTGGG-NH2  
SRT  
FRET Probe 1

1423  
1424

Set 1

r4A1 Primary Probe aac gag ggg cac tgg ata ccc ttg gg-NH2  
r4A1 Arrestor ccc aag ggt atc caa tgc gc-NH2  
r4A1 Invader ggt gga gac cat aaa tgg agt gta cta  
SRT  
FRET Probe 1

1425  
1426  
1427

Set 1

r4A2 Probe aac gag ggg cac agg tgi cig gag taa aag-NH2  
r4A2 Arrestor ctt tta atc cag aca cct tgg cgc-NH2  
r4A2 Invader gtc cac gca caa gct ggg ac  
SRT  
FRET Probe 1

1428  
1429  
1430

Set 1

r4A2 Probe aac gag ggg cac aga agg ccc ctt-NH2  
r4A2 Arrestor aat gga cct tca tgg cgc-NH2  
r4A2 Invader cct tga aca gca cca gga ata gac tga gca c  
r4A2 stacking oligo gga aga acc cag aga cac cat cc  
SRT

1431  
1432  
1433  
1434



# FRET Probe 1

## Set 2

r4A2 Probe  
r4A2 Arrestor  
r4A2 Invader  
SRT  
cct tga aca gca cca gaa ata gac tga gca c

1435  
1436  
1437

## FRET Probe 1

## Set 3

r4A2 Probe  
r4A2 Arrestor  
r4A2 Invader  
SRT  
aac gag ggg cac aga agg ccc ctt g-NH2  
caa ggg gcc ttc tgt ggg c-NH2  
cct tga aca gca cca gaa ata gac tga gca c

1438  
1439  
1440

## FRET Probe 1

## Set 4

r4A2 Probe  
r4A2 Arrestor  
r4A2 Invader  
SRT  
aac gag ggg cac aga agg ccc ctt gg-NH2  
aac gag ggg cac aga agg ccc ctt  
aac gag ggg cac aga agg ccc ctt - HEX  
cca agg gcc ctt ctt ggc gc-NH2  
aac ggg cct tct ggg cgc  
cct tga aca gca cca gaa ata gac tga gca c

1441  
1442  
1443  
1444  
1445  
1446

## FRET Probe 1

## Set 1

r4A3 Probe  
r4A3 Arrestor  
r4A3 Invader  
SRT  
aac gag ggg cac ttg aca gag tcc gc-NH2  
ggg gac tct gtc aag tgc gc-NH2  
gct tct ccc att tgt cta gca tta taa

1447  
1448  
1449

## FRET Probe 1

## Set 2

r4A3 Probe  
r4A3 Arrestor  
r4A3 Invader  
SRT  
aac gag ggg cac ttg aca gag tcc g-NH2  
ggg act cgg tca agt ggc c-NH2  
gct tct ccc att tgt cta gca tta taa  
cca tga ttg tga cat agg gtt tga gga tg

1450  
1451  
1452  
1453

## FRET Probe 1



Set 3  
r4A3 Probe  
r4A3 Probe  
rCYP 4A3 Probe  
r4A3 Arrestor  
rCYP 4A3 Arrestor  
r4A3 Invader  
r4A3 stacking oligo  
SRT  
FRET Probe 1

aac gag gcg cac ttg aca gag tcc-NH2  
aac gag gcg cac ttg aca gag tcc  
aac gag gcg cac ttg aca gag tcc - HEX  
gga ctc tgc caa gtc cgc-NH2  
gga ctc tgc caa gtc cgc  
gct tct ctc att tgc cta gca tta taa  
ggc atg att ttg aca tag ggt ttg aag atg

1454  
1455  
1456  
1457  
1458  
1459  
1460

Set 1  
r2B1 probe  
r2B1 invader  
Capture Sequence

cgg agc ctc tgc ggt cat caa g  
tgg ala act oca tca ctg tat qgc att tta a

1461  
1462

Set 2/ Set 3  
r2B1 probe  
r2B1 probe  
r2B1 invader  
Capture Sequence

gig-gcg-tat-cig-cgg-tca-tca-ag  
gig-gcg-tat-cig-cgg-tca-tca-a  
gcg ata act gca tca cig tat gcc att tta a

1463  
1464  
1465

Set 4  
r2B1 probe  
r2B1 invader  
Capture Sequence

tg-gcg-tat-clg-cgg-ica-ica-a  
tgc ata act qca tca clg tat qgc att tta a

1466  
1467

Set 5 - Set 7  
2B1 probe  
2B1 arrestor  
2B1 arrestor  
2B1 arrestor  
2B1 invader  
SRT  
SECRET

aac-gag-gcg-cac-cig-cgg-ica-ica-a  
 ttg-atg-acc-gca-ggt-gcg-cc-NH2  
 ttg-atg-acc-gca-ggt-gcg-cc-pi  
 ttg-atg-acc-gca-ggt-gcg-cc-OH  
 ggg ate act gca ica glg lat ggc att tta a

1468  
1469  
1470  
1471  
1472

Set 8  
281 probe

aac-gag-gcg-cac-ctg-cgg-tca-tca-a

1473



r2B1 arrestor  
r2B1 invader  
r2B1 stacker  
SRT  
FRET

**ttg-atg-acc-gca-agg-ggc-cc-Pi**  
tgg ata act gca tca gtg tat ggc att tta a  
ggg ttg gta gcc tgt gtg agc cga t

1474  
1475  
1476

Set 9  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
SRT  
FRET

**aac-gag-gcg-cac-cig-cgg-tca-tca-a-NH2**  
**ttg-atg-acc-gca-agg-ggc-NH2**  
tgg ata act gca tca gtg tat ggc att tta a

1477  
1478  
1479

Set 10  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
SRT  
FRET

**ggc-aac-gag-gca-cac-cig-cgg-tca-tca-ag-Pi**  
**ttg-atg-acc-gca-agg-ggc-cc-Pi**  
tgg ata act gca tca gtg tat ggc att tta a

1480  
1481  
1482

Set 11  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
SRT  
FRET

**aac-gag-gcg-cac-cig-cgg-tca-tca-ag-NH2**  
**ctt-gat-aac-cgc-agg-tgc-c-NH2**  
tgg ata act gca tca gtg tat ggc att tta a

1483  
1484  
1485

Set 12  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
SRT  
FRET

**aac-gag-gcg-cac-cig-cgg-tca-tca-agg-NH2**  
**cct-tga-tga-cgg-cag-gtg-cg-NH2**  
tgg ata act gca tca gtg tat ggc att tta a

1486  
1487  
1488

Set 13  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
SRT  
FRET

**atg-acg-tga-cag-acc-tgc-ggt-cat-caa-g-NH2**  
**ctt-gat-aac-cgc-agg-tgc-gt-NH2**  
tgg ata act gca tca gtg tat ggc att tta a

1489  
1490  
1491





r2B1 arrestor  
r2B1 invader  
r2B1 slacker  
SRT  
FRET

**ctt gat gac cgc agt gag agc-nh2**  
gig gat aac tgc atc agt tgg cat ttt c  
ggg tgg tag cct ggg tga gcc gat c

1510  
1511  
1512

Set 20  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
r2B1 slacker  
SRT  
FRET

**cag tca cgt ctc act gcg gtc atc-nh2**  
**atg acc gca gta aga cgc-nh2**  
gig gat aac tgc atc agt tga tgg cat ttt c  
caa ggg ttg gta gcc tgt ggg agc c

1513  
1514  
1515  
1516

Set 21  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
r2B1 slacker  
SRT  
FRET

**ccg tca cgc ctc act gcg gtc atc a-nh2**  
**tga tga cca cag tga gac g-nh2**  
gig gat aac tgc atc agt tga tgg cat ttt c  
agg gtt ggt agc ctg tgt gag ccg a

1517  
1518  
1519  
1520

Set 22  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
r2B1 slacker

**ccg tca cgc ctc act gcg gtc atc-nh2**  
**gat gac cgc agt gag agc-nh2**  
gig gat aac tgc atc agt tga tgg cat ttt c  
aag ggt tgg tag ccg ggg tg

1521  
1522  
1523  
1524

Set 23  
r2B1 probe  
r2B1 arrestor  
r2B1 invader  
r2B1 slacker  
SRT  
FRET

**ccg tca cgc ctc act gcg gtc atc-nh2**  
**ccg tca cgc ctc act gcg gtc at**  
**atg acc aca ctg agc agc-nh2**  
gig gat aac tgc atc agt tga tgg cat ttt c  
xaa ggg ttg gta gcc tgt ggg agc c

1525  
1526  
1527  
1528  
1529

Set 1  
r2B1 invader  
r2B1 probe

**atg gtc tct ttg gtc act ctg tgt ggt aca**  
**aac-gag-gcg-cac-lcc-aat-agg-gac-aag**

1530  
1531



1532

ctt-gtc-cct-att-gga-gtg-cgc-c

r2B1 arrestor  
SRT  
FRET

Set 1

gcg gcg tac agc cgg tgt gag c  
cat ttt act gcg gtc atc aag ggt tgg tc

Capture Sequence

1533  
1534

r2B1 probe

tgg cgt atg agc cgg tgt gag c

r2B1 invader

cat ttt act gcg gtc atc aag ggt tgg tc

Capture Sequence

1535  
1536

Set 1

gga tga ctg cat cag tgt atg gca ttt tgc  
aac-gag-gcg-cac-gtc-aga-tca-agg  
cct-tga-tga-tcg-tac-tac-gtg-cgc-c-NH2

r2B2 invader  
r2B2 probe  
r2B2 arrestor  
SRT  
FRET

1537  
1538  
1539

Set 1

atg gtg tct ttg gtc act ctg tgt ggt aac  
tgg cgt atg acc aat tgg ggc aa  
gat ctg caa atc tct gaa tct cgt gga tg  
tct tga aga gca ggt acc ctc gga ac

r2B2 invader stacker

1540  
1541  
1542  
1543

Set 2

tgg cgt atg acc aat tgg ggc aag  
atg gtg tct ttg gtc act ctg tgt ggt aac  
atc tgc aaa tct ctg aat ctc ctg ggt gga  
tct tga aga gca ggt acc ctc gga ac

r2B2 invader stacker

1544  
1545  
1546  
1547

Set 3

aac-gag-gcg-cac-acc-aat-tgg-ggc-aag  
aac gac gcg caa acc aat tgg ggc aag  
ctt-gcc-sca-att-ggt-ttg-sgc-c-NH2  
atg gtg tct ttg gtc act ctg tgt ggt aac

r2B2 probe  
r2B2 probe  
r2B2 arrestor  
SRT  
FRET

1548  
1549  
1550  
1551





Set 4	aac gag gcg cac acc aal tgg ggc aag P1	1552
r2B2 probe	<b>ctt gcc cca att ggt atg cg-NH2</b>	1553
r2B2 arrestor	aac gag gcg cac acc aal tgg ggc aag P1	1554
r2B2 invader	atg gfg tct ttg gfg act ctg tgt ggt aac	
SRT		
FRET		
Set 5	<b>ctt gcc cca att ggt atg cg-NH2</b>	1555
r2B2 arrestor	aac gag gcg cac acc aal tgg ggc aag-NH2	1556
r2B2 probe	atg gfg tct ttg gfg act ctg tgt ggt aac	1557
r2B2 invader	atc tgc aaa tct ctg aat ctc ctg gat ga	1558
r2B2 stacker		
SRT		
FRET		
Set 6	ggc aac gag gca cac caa ttg gfg caa-g	1559
r2B2 probe	<b>ctt gcc cca att ggt atg cg-NH2</b>	1560
r2B2 arrestor	atg gfg tct ttg gfg act ctg tgt ggt aac	1561
r2B2 invader		
SRT		
FRET		
Set 7	aac gag gcg cac acc aat tgg ggc aag atc-NH2	1562
r2B2 probe	<b>gat ctt gcc cca att ggt atg cg-NH2</b>	1563
r2B2 arrestor	atg gfg tct ttg gfg act ctg tgt ggt aac	1564
r2B2 invader		
SRT		
FRET		
Set 8	aac gag gcg cac acc aat tgg ggc aag-NH2	1565
r2B2 probe	<b>ctt gcc cca att ggt atg cg-NH2</b>	1566
r2B2 arrestor	atg gfg tct ttg gfg act ctg tgt ggt aac	1567
r2B2 invader	atc tgc aaa tct ctg aat ctc ctg gat ga	1568
r2B2 stacker		
SRT		
FRET		
Set 9	cag tca cgt ctc atg gfg gcc tgt g-NH2	1569
r2B2 probe		



r2B2 invader  
r2B2 arrestor  
SRT  
FRET

lga lgg cat ttt ggt acg aat ctc aag ggc  
cac agg cca cca tga tga gac g-nh2

1570  
1571

Set 10  
r2B2 probe  
r2B2 invader  
r2B2 arrestor  
r2B2 stacker  
SRT  
FRET

cag tca cgt ctc aga gcc aat cac ctg-nh2  
cga tca tca agg gat ggt ggc ctg tgc  
cag cgt att ggc tct gac agc-nh2  
atc aat ctc ttt tlg gac ttt ctc tgc g

1572  
1573  
1574  
1575

Set 11  
r2B2 probe  
r2B2 invader  
r2B2 arrestor  
r2B2 stacker  
SRT  
FRET

cag tca cgt ctc aga gcc aat cac ct-nh2  
cga tca tca agg gat ggt ggc ctg tgc  
aga tga tgg gct ctg aga ctg-nh2  
gat caa tct cct ttt gga ctt tct ctg c

1576  
1577  
1578  
1579

Set 12  
r2B2 probe

FAM-cag tca cgt ctc aga gcc aat cac ct-nh2

1580

Set 13 / Set 14  
r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker  
SRT  
FRET

cag tca cgt ctc aga gcc aat cac ct-nh2  
ggt gat tgg ctc tga gac g-nh2  
cga tca tca agg gat ggt ggc ctg tgc  
gat caa tct cct ttt gga ctt tct ctg c  
lga tca atc tcc ttt tgg act ttc tct gc

1581  
1582  
1583  
1584  
1585

Set 15  
r2B2 probe  
r2B2 arrestor  
r2B2 stacker  
r2B2 invader  
SRT  
FRET

cag tca cgt ctc aga gcc aat cac-nh2  
ggt att ggc tct gac agc-nh2  
ctg aat ctc ctt ttt gac ttt ctc tgc g  
cga tca tca agg gat ggt ggc ctg tgc

1586  
1587  
1588  
1589



#### Set 16

r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker  
SRT  
FRET

cag tca cgt ctc aga ggc aat cac ct-NH2  
**agg tga ttg cct ctg aga cg-NH2**  
cga tca tca agg gat ggt ggc ctg tgc  
gat caa tct cct ttg gga ctt tct ctg c

1590  
1591  
1592  
1593

#### Set 17

r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker  
SRT  
FRET

cag tca cgt ctc aga ggc aat cac ctg-NH2  
**caq gta att gcc tct aga acg-NH2**  
cga tca tca agg gat ggt ggc ctg tgc  
atc aat atc ctt ttg gac ttg ctg tgc g

1594  
1595  
1596  
1597

#### Set 18

r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker  
SRT  
FRET

cog tca cgc ctc aga ggc aat cac ct-NH2  
**agg tga ttg cct ctg agg cg-NH2**  
cga tca tca agg gat ggt ggc ctg tgc  
gat caa tct cct ttg gga ctt tct ctg c

1598  
1599  
1600  
1601

#### Set 19

r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker  
SRT  
FRET

cog tca cgc ctc aga ggc aat cac c-NH2  
**ggt gat tga ctc tga ggc g-NH2**  
cga tca tca agg gat ggt ggc ctg tgc  
tga tca atc tcc ttg tgg act ttg ctg c

1602  
1603  
1604  
1605

#### Set 20-21

r2B2 probe  
r2B2 probe  
r2B2 arrestor  
r2B2 invader  
r2B2 stacker

cog tca cgc ctc aga ggc aat cac-NH2  
cog tca cgc ctc aga ggc aat cac  
**gta att gcc tct aga tgc-NH2**  
cga tca tca agg gat ggt ggc ctg tgc  
**ctg** atc aat ctc ctt ttg gac ttg ctg tgc g

1606  
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# Set 22

r2B2 probe

r2B2 invader

r2B2 arrestor

SRT

FRET

cag tca cgt ctc atg gtc aea gla ctg tgg-NH2  
gga agt gct cag gat tga agg tgt ctg gc  
cca cag tac ttg gac cat gag acg-NH2

1611

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# Set 23

r2B2 probe

r2B2 invader

r2B2 arrestor

SRT

FRET

aac gag gcg cac atg gtc aea gla ctg tgg-NH2  
cca cag tac ttg gac cat ctg cgc-NH2  
gga agt gct cag gat tga agg tgt ctg gc

1614

1615

1616

r2B2 probe

r2B2 invader

cat acg gtt ggg cct gtg aga gc  
cat ttg ggt acg atc aag gga tgg tc

1617

1618

r3A1 probe

r3A1 probe

r3A1 invader

r3A1 probe

r3A1 probe

r3A1 arrestor

r3A1 probe

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

r3A1 arrestor

agg agc cac ggg tcc caa atc  
FL-agg agc cac ggg tcc caa atc  
tcc cct gtt tct tga aaa gtc cat gtg tga  
F-tgg cgt agt cgt gtc cca aat c  
cat-cit-cgc-gga-cgg-gtc-cca-aat-c  
gac-ttg-gga-ccc-agg-tgc-cgc-NH2  
aac-gag-gcg-cac-cgg-gtc-cca-aat-c-NH2  
cat-cit-cgc-gga-cgg-gtc-cca-aat-c - NH2  
gga tt ggg acc cgt cgg cga - NH2  
gga tt ggg acc cgt cgg cga - NH2  
gga tt ggg acc cgt cgg cga - NH2  
gat-ttg-gga-ccc-agg-tgc-cgc-NH2  
gat-ttg-gga-ccc-agg-tgc-cgc-NH2  
gat-ttg-gga-ccc-agg-tgc-cgc-NH2  
gat-ttg-gga-ccc-agg-tgc-cgc-NH2  
gat-ttg-gga-ccc-agg-tgc-cgc-NH2

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1635

r3A1 probe

r3A1 probe

r3A1 probe

aac gag gcg cac cgg gtc cca aat c-Pi

1636



r3A2 invader	gga atc gtc act gac cct ttg ggt ata aac ac	1674
r3A2 stacker	lct ttt tta cag act ctc tca agt cta tta cc	1675
r3A2 arrestor	tat aga act tga tgg ttg tgc ggc-NH2	1676
r3A2 probe	aac gag ggc cag aac cat cca gtt cta-NH2	1677
r3A2 stacker	lct ttt tta cag act ctc tca agt cta tta cc	1678
r3A2 arrestor	tat aga act tga tgg ttg tgc ggc-NH2	1679
r3A2 probe	cag tca cgt ctc ctc ggc agg gc-NH2	1680
r3A2 invader	cac aat atc gtc ggt agg agt gtc cta aa	1681
r3A2 arrestor	gac ctt ggc agg aga ag-NH2	1682
r3A2 probe	cag tca cgt ctc ctc ggc agg g-NH2	1683
r3A2 stacker	ccc cat cga tct cct cct g	1684
r3A2 arrestor	ccc tgc cga gga ggc g-NH2	1685
r3A2 probe	cag tca cgt ctc ctc ggc agg-NH2	1686
r3A2 stacker	gac tca tgg atc tcc tcc	1687
r3A2 arrestor	cct ggc gga ggc ag-NH2	1688
r3A2 probe	cag tca cgt ctc ctc ggc ag-NH2	1689
r3A2 stacker	ggc ccc atc gat ctc ctc	1690
r3A2 arrestor	cgt cga agg aga ag-NH2	1691
r3A2 probe	cag tca cgt ctc ctc ggc agg-NH2	1692
r3A2 arrestor	cct ggc gga ggc ag-NH2	1693
r3A2 stacker	ggc cca tgg atc tcc tcc	1694
r3A2 probe	cag tca cgt ctc ctc ggc agg	1695
<hr/>		
hICAM-1 probe	cag tca cgt ctc ggc ttg tgt gtt c-NH2	1696
hICAM-1 invader	cag gga tgg gtt cag gga ggc gtc	1697
hICAM-1 stacker	ggt ttc atg ggc gtc cct	1698
hICAM-1 arrestor	gaa cac aca agc aga ggc g	1699
hVCAM-1 probe	cag tca cgt ctc ggc ttt gtt tgc-NH2	1700
hVCAM-1 arrestor	cca aac aag ggc ggc ggc	1701
hVCAM-1 invader	ggg caa cat tga cat aag gtt ggc tac tct c	1702
hVCAM-1 stacker	ggt cga att cca tgc cat c	1703
hVCAM-1 probe	cag tca cgt ctc ggc ttt gtt tgc-NH2	1704
hVCAM-1 arrestor	cca aca aag ggc agt ggc	1705
hVCAM-1 stacker	ggt tgc att tcc atg tca tc	1706
hGAPDH probe	aac gag ggc cag gct cct gga aga tgc-NH2	1707
hGAPDH arrestor	cat ctt cca gga ggc tgc ggc-NH2	1708

hGAPDH invader cac ttg att ttg gag gga tct ca

1709

# Secondary system oligos

Capture Oligo aaa agt ggc tcc t-(biotin)c  
Capture Oligo aaa aga ggc tcc gct-(biotin)c  
Capture Oligo aaa atg tac gcc gct-(biotin) c  
Capture Oligo aaa aga tac gcc aca gct-(biotin) c  
Capture Oligo aaa acc aac cgt atg aac t-(biotin) c  
Capture Oligo aaa atc ata cgc cac t-(biotin)c

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SRT cgg-agg-aag-cag-ttg-gtg-gtc-ctc-gtt-gcc-tt-NH2  
SRT cgg adg aag cag ttg cgg ccc ctc gtt aa-NH2  
SRT cgg aag aag cag ttg cgg cgc ctc gtt aa-NH2  
SRT cgg aag aag cag ttg cgg cgc ctc gtt aa-NH2  
SRT cgg aag aag cag ttg cgg cgc ctc gtt aa  
SRT cgg aag aag cag ttg cgg cgc ctc gtt aa  
SRT cgg aag aag cag ttg cgg cgc ctc gtt aa  
SRT cgg aag aag cag ttg gag ggc tga cgg t-NH2  
SRT cgg aag aag cag ttg gag ggc tga cgg a-NH2  
SRT cgg aag aag cag ttg gag ggc tga cgg a  
SRT cgg aag aag cag ttg gag ggc tga cgg L  
SRT cgg aag aag cag ttg gag ggc tga cgg L  
SRT cgg aag aag cag ttg gag ggc tga cgg L  
SRT cgg aag aag cag ttg gag ggc tga cgg a

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FRET probe FL-caa c(cy3)gc ttc ctc  
FRET probe FL-caa c(cy3)gc ttc ctc c  
FRET probe FL-caa-c(cy3)g-ctt-ctt-cgg  
FRET probe FL-caa-c(cy3)g-ctt-ctt-cgg-uuL  
FRET probe FL-caa-c(cy3)g-ctt-ctt-cgg-uuuuL  
FRET probe FL-caa-c(cy3)g-ctt-ctt-cgg-NH2

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Oligo sequence descriptions:  
 5' to 3' direction, 2'-One nts are bolded and underlined, internal modifications are defined in ( ), ASR of primary probes are underlined  
 C-18ddC = C18 Inter-dideoxy C, ddC = dideoxy C, Fl = Fluorescein

Oligo Type	Oligo Sequence	SEQ ID NO
<b>HUMAN IL-2</b>		
Human IL-2 Probe	Fl- CGAAATTAAATACGCCCTCTGGGCATGTAC - C18ddC	1736
Human IL-2 Probe	CGAAATTAAATACGCCCTCTGGGCATGTAC - C18ddC	1737
Human IL-2 Invader	CTGAAGATGTTTCAGTCTGTG - ddC	1738
Human IL-2 Invader	GAAGATGTTTCAGTCTGTG - ddC	1739
Human IL-2 Probe	TCACCTCTACCTCTCTGGGCATGTAA	1740
Human IL-2 Probe	TCACCTCTACCTCTCTGGGCATGTAAAC	1741
Human IL-2 Probe	TCAGTCTACCTCTCTGGGCATGTAA - C18ddC	1742
Human IL-2 Probe	GAAGATGTTTCAGTCTGTG - ddC	1743
Human IL-2 Probe	Fl- ACTTCTACTTAATTCATCAAAATC	1744
Human IL-2 Probe	ACTTCTACTTAATTCATCAAAATC - C18ddC	1745
Human IL-2 Invader	GAGTTTGGGATCTTGTAATTAT - ddC	1746
Human IL-2 Probe	Fl- CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1747
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1748
Human IL-2 Invader	GAGTTTGGGATCTTGTAATTAT - ddC	1749
Human IL-2 Probe	Fl- CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1750
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1751
Human IL-2 Probe	Fl- CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1752
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATTCATCAAAATC	1753
Human IL-2 Invader	GAGTTTGGGATCTTGTAATTAT - ddC	1754
<b>HUMAN β-ACTIN</b>		
Human β-actin Probe	Fl- TTCTCTACTCTTGATCTTGATCTTG	1755
Human β-actin Invader	CTCAGGAGGAGCAATGATCTT	1756
Human β-actin Probe	Fl- TCACCTTCTACTCTGGGTCATCTTG - C18ddC	1757
Human β-actin Probe	TCACCTTCTACTCTGGGTCATCTTG - C18ddC	1758
Human β-actin Probe	GTGTGGAAGGTCCTCAACATGAT - ddC	1759
Human β-actin Invader	GCGTGTGAAGGTCCTCAACATGAT - ddC	1760
Human β-actin Probe	Fl- CGTGTCTGTGGCGTATCTTGATCTTG	1761
Human β-actin Probe	CGTGTCTGTGGCGTATCTTGATCTTG	1762
Human β-actin Invader	GCGTGTGAAGGTCCTCAACATGAT - ddC	1763
Human β-actin Invader	GCGTGTGAAGGTCCTCAACATGAT - ddC	1764
<b>HUMAN GAPDH</b>		
Human GAPDH Probe	Fl- TTCATACGGTGTGATGTAGGTCAATG	1765
Human GAPDH Probe	TTCATACGGTGTGATGTAGGTCAATG	1766
Human GAPDH Invader	GGAATCATATTGGAACATTAACCATC	1767
Human GAPDH Probe	Fl- TTCATACGGTGTGATGTAGGTCAATG	1768





Human GAPDH Probe	TTCTATACGGTTGGCTCTCTGGAAGATG	1769
Human GAPDH Invader	CACITTAGTTTTGGAGGATCTCA	1770
Human/Mouse/Rat GAPDH Probe	TTCTATACGGTTGGTACGTGAGGTCAATG	1771
Mouse/Rat GAPDH Invader	AGAACTACTTGGAACTGTAGACCATC	1772
Mouse GAPDH Probe	FTTGGCGTATCAITGATGTTGA	1773
Mouse GAPDH Probe	TGGCGTATCAITGATGTTGA	1774
Mouse GAPDH Invader	GGAGTCATCTGGAACATGTAGACC	1775
Mouse GAPDH Probe	TGGCGTATCAITGATGTTGA	1776
Mouse GAPDH Invader	AGTCATCTGGAACATGTAGACA	1777
Mouse GAPDH Invader	GGAGTCATCTGGAACATGTAGACA	1778
<b>MOUSE IL-6</b>		
Mouse IL-6 Probe	FI-TGGCGTATCTCTTTTCTCTATII	1779
Mouse IL-6 Probe	TGGCGTATCTCTTTTCTCTATII	1780
Mouse IL-6 Invader	ACAATCAGAAITTGCCATTGCAACA	1781
<b>MOUSE ONCOSTATIN M</b>		
Mouse Oncostatin M Probe	FI-GAAGGCAGAGGACCGTGAGGC	1782
Mouse Oncostatin M Probe	GAAGGCAGAGGACCGTGAGGC	1783
Mouse Oncostatin M Invader	AAGACATCTGGTGTGTGTAGTGA	1784
Mouse Oncostatin M Probe	FI-TGGCGTATCTCTCCAGAGAAAGC	1785
Mouse Oncostatin M Probe	TGGCGTATCTCTCCAGAGAAAGC	1786
Mouse Oncostatin M Invader	CACCTGACCGATGAAGCGATGGTAA	1787
Mouse Oncostatin M Probe	FI-TGGCGTATCTAGGGCTCCAAAG	1788
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCAAAG	1789
Mouse Oncostatin M Invader	GTGTCAGGTTTGGAGCGGATAA	1790
Mouse Oncostatin M Probe	FI-TGGCGTATCTAGGGCTCCAAAG	1791
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCAAAG	1792
Mouse Oncostatin M Probe	GTGTCAGGTTTGGAGCGGATAA	1793
FRET Probe	FI-ATTC(CY3)TCTCAGA-3NH2	1794
FRET Probe	FI-ATTC(CY3)TCTCAGA-3NH2	1795
FRET Probe	FI-ATTC(CY3)TCTCAGA-3NH2	1796
SRT	CAGTCTGAGTGAATGATACGCCAGG-3NH2	1797
Mouse Oncostatin M Arrestor	<b>CTTGGAGCCCTAGATA-NH2</b>	1798
Mouse Oncostatin M Arrestor	<b>CTTGGAGCCCTAGAT-NH2</b>	1799
Mouse Oncostatin M Arrestor	<b>CTTGGAGCCCTAGATA-NH2</b>	1800
Mouse Oncostatin M Probe	CTGGCGTATCTAGGGCTGCC	1801
Mouse Oncostatin M Probe	GTGTCAGGTTTGGAGCGGATAA	1802
Mouse Oncostatin M Invader	CAGTCTGAGTGAATGATACGCCAGG-3NH2	1803
SRT	<b>CTTGGAGCCCTAGAT-NH2</b>	1804
Arrestor	<b>FI-CTCTCTGCTCTAGGGCTGCA</b>	1805
Mouse Oncostatin M Probe		



Mouse Oncostatin M Probe	CTCTCTGCTCTTAGGGCTCAA	1807
Mouse Oncostatin M Invasor	GTGTTACAGGTTTTGGAGCGGTAA	1808
SRT	CAGTCTGAGATGAATGACAGCAGAGAGT-NH2	1809
Mouse Oncostatin M Arrestor	CTTGGAGCCTAGAG-NH2	1810
Mouse Oncostatin M Probe	FL TGGCGTATCTAGGGCTCCA	1811
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCA	1812
Mouse Oncostatin M Invasor	GTGTTACAGGTTTTGGAGCGGTAA	1813
Mouse Oncostatin M Probe	TGGCGTATCTGCCAGAGAAA	1814
Mouse Oncostatin M Probe	TGGCGTATCTGCCAGAGAAA	1815
Mouse Oncostatin M Invasor	CAGTGAAGCGATGAAGCGATGTAA	1816
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTC	1817
Mouse Oncostatin M Invasor	GTGTTACAGGTTTTGGAGCGGAA	1818
Mouse Oncostatin M Probe	CTCTCTGCTCTTCAGGTTTG	1819
Mouse Oncostatin M Invasor	GSCAGCTCTCAGTCTAGGTGTA	1820
Mouse Oncostatin M Invasor	AGGAGCTCTCAGGTCAGGTGTA	1821
SRT	CAGTCTGAGATGAATGACAGCAGAGAGT-NH2	1822
FRET Probe	FL-ATTCTCTCTCTCAGAC-3NH2	1823
Mouse Oncostatin M Arrestor	CAAAACCTGAAGAGA-3NH2	1824
Mouse Oncostatin M Arrestor	CAAAACCTGAAGAGA-3NH2	1825
Mouse Oncostatin M Probe	FL-CTCTCTGCTCTCTCAGGTTTG	1826
Mouse Oncostatin M Probe	CTCTCTGCTCTCTCAGGTTTG-NH2	1827
Mouse Oncostatin M Invasor	GSCAGCTCTCAGTCTAGGTGTA	1828
Mouse Oncostatin M Invasor	GAGCGGATATAGGCT-Boilin TEG	1829
<b>HUMAN ONCOSTATIN</b>		1830
Human Oncostatin M Probe	CTCTCTGCTCTCTAAGGACTTA	1831
Human Oncostatin M Probe	CTCTCTGCTCTCTAAGGACTTA	1832
Human Oncostatin M Invasor	GAACAGGAGTGAAGGACGACACA	1833
Human Oncostatin M Probe	TCACGCTCTCTCAGGTTTG	1834
Human Oncostatin M Probe	AGTCAGCTCTCTCAGGTTTG	1835
Human Oncostatin M Probe	CAGTCAGCTCTCTCAGGTTTG	1836
Human Oncostatin M Probe	AGSCAGCTCTCAGGTTTG	1837
Human Oncostatin M Invasor	FL-CAAC(CY3)GCTCTCTCTCG	1838
FRET Probe 1	CGGAGGAGCAGTTGGAGACGTGACTGTGG-NH2	1839
SRT	CGGAGGAGCAGTTGGAGACGTGACTGTGG-NH2	1840
SRT with mismatch	CGGAGGAGCAGTTGGAGACGTGACTGTGG-NH2	1841
		1842



bold indicates 2' o-methyl bases

Oligo Type	Oligo Sequence	Oligo #	SEQ ID NO
<b>SECONDARY SYSTEM:</b>			
SET 1			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1843
secondary target	5'-CGGAAGAAGCAGTTGGTGGCGCTCGTTAA-NH2	649-10-01	1844
SET 2			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1845
secondary target	5'-CGGAAGAAGCAGTTGGAGGCGTGACGGT-NH2-3'	641-60-03	1846
<b>h2C19 designs 2</b>			
probe	5'-AACGAGCGCACGATGTCATCGA-NH2-3'	971-26-09	1847
stacker	5'-TCTTTGGTGTCTTTTACTTTCTC-3'	971-26-12	1848
invader	5'-GCAATCAATAAGATCCGAGGGTTGTC	971-26-11	1849
arrestor	5'-TCGATGGACATCGTGGGC-3'	971-26-10	1850
SET 1			
probe	5'-CCGTCACGCCCTCTCACCCATCT-NH2-3'	971-11-01	1851
stacker	5'-CTGGTCCGCCGACCT-3'	971-11-04	1852
invader	5'-TGTAGGGCATGTGAGCCTTGA-3'	971-11-03	1853
arrestor	5'-AGATGGGAGAGAGGCG-3'	971-11-02	1854
SET 2			
probe	5'-CCGTCACGCCCTCGAAGCCCTGT-NH2-3'	971-11-05	1855
stacker	5'-ACTCGATGTCACGGATGTCATGG-3'	971-11-08	1856
invader	5'-GAGTCGTCTCCCTAGGATGCGC-3'	971-11-08	1857
arrestor	5'-ACAGGGCTTCGAGCG-3'	971-11-06	1858
SET 2			
probe	5'-CCGTCACGCCCTCCCTGAGAAAG-NH2-3'	971-11-09	1859
stacker	5'-GCAGGAAGGCCCTCG-3'	971-11-12	1860
invader	5'-CCCGAGCATGCACGGCGGA-3'	971-11-11	1861
arrestor	5'-CTTCTCAGCAGGAGGCG-3'	971-11-10	1862
SET 2			



# h 2D6 shroter designs

probe	5'-CCGTCACGCCTCCCTGCTGAGAA-HEX-3'	1051-12-06	1863
probe	5'-CCGTCACGCCTCCCTGCTGAGAA-3'	1051-12-05	1864
probe	5'-CCGTCACGCCTCCCTGCTGAGAA-NH2-3'	971-38-01	1865
invader	5'-CCGAGGATGACGCGGGA-3'	971-11-11	1866
stacker	5'-GGCAGGAAGGCTCC-3'	971-38-03	1867
arrestor	5'-TTTCTCAGCAGGAGGCG-3'	971-38-02	1868
SET 2			

probe	5'-CCGTCACGCCTCCCTGCTGAGAA-NH2-3'	971-38-07	1869
invader	5'-AAGGCAGGAAGGCTCC-3'	971-11-11	1870
stacker	5'-TCTCAGCAGGAGGCG-3'	971-38-09	1871
arrestor		971-38-08	
SET 2			

probe	5'-CCGTCACGCCTCCCTGCTGAGAA-NH2-3'	971-38-04	1872
invader	5'-AGGCAGGAAGGCTGG-3'	971-11-11	1873
stacker	5'-TTCTCAGCAGGAGGCG-3'	971-38-06	1874
arrestor		971-38-05	
SET 2			

probe	5'-CCGTCACGCCTCCCTGCTGAGAAAG-NH2-3'	971-11-09	1875
invader	5'-GCAGGAAGGCTCCG-3'	971-11-11	1876
stacker	5'-CTTCTCAGCAGGAGGCG-3'	971-11-12	1877
arrestor		971-11-10	
SET 2			

# h 2B5 p450 alt. Splice designs

probe	5'-AACGAGGCGCACACATATCCG-NH2-3'	1051-48-01	1878
invader	5'-CCAGCGTTTCATTGGCAAGATCAA-3'	971-01-03	1879
stacker	5'-CGGAAGATGGGTGACCATG-3'	971-01-04	1880
arrestor	5'-GGGATATGGTGGTGGCG-3'	1051-48-02	1881
SET 1			

probe	5'-CCGTCACGCCTCCACCATATCCG-HEX-3'	1051-12-02	1882
probe	5'-CCGTCACGCCTCCACCATATCCG-3'	1051-12-01	1883
probe	5'-CCGTCACGCCTCCACCATATCCG-NH2-3'	971-01-01	1884
invader		971-01-03	
stacker		971-01-04	
arrestor		971-01-02	

probe	5'-GGGATATGGTGGAGGCG-3'		1885
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# SET 2

probe

invader

stacker

arrestor

SET 1

probe

SET 2

h 2B6 p450 alt.splice design2

p

i

s

a

SET 1

p

i

s

a

SET 2

p

i

s

a

SET 1

p

i

s

a

SET 2

h2B6 p450 alt. Splice design4

5'-AACGAGGCGCACAGAGCTGATGAG-NH2-3'

5'-GAGAAAGAGCTCAAAACAGCTGGCCGAATAA-3'

5'-TGAAAAGTCTGTGTAGAACAAAGTTCCAGC-3'

5'-CTCATCAGCTCTGGTGGCG-3'

5'-CCGTCACGCCCTCAGAGCTGATGAG-NH2-3'

5'-CTCATCAGCTCTGGAGGCG-3'

5'-AACGAGGCGCACCCCTTGGATTTC-NH2-3'

5'-CTGTTCAATCTCCCTGTAGACTCTCTA-3'

5'-CGAAGCTCTCTATCAG-3'

5'-GAAATCCAAAGGGTGGCG-3'

5'-CCGTCACGCCCTCCCTTGGATTTC-NH2-3'

5'-GAAATCCAAAGGGAGGCG-3'

5'-AACGAGGCGCACTGAGGGCC-NH2-3'

5'-GGAAGAGGAAGGTGGGTCCAA-3'

5'-CCCTTGATTCCGAAG-3'

5'-GGCCCTCAGTGGCG-3'

5'-CCGTCACGCCCTCTGAGGGCC-NH2-3'

5'-GGCCCTCAGAGGCG-3'

1051-48-03

971-01-10

971-01-11

1051-48-04

971-01-08

971-01-10

971-01-11

971-01-09

1051-48-05

1051-48-10

1051-48-09

1051-48-06

1051-48-07

1051-48-10

1051-48-09

1051-48-08

1051-48-11

1051-48-16

1051-48-15

1051-48-12

1051-48-13

1051-48-16

1051-48-15

1051-48-14

1886

1887

1888

1889

1890

1891

1892

1893

1894

1895

1896

1897

1898

1899

1900

1901

1902

1903



probe	1904
invader	1905
stacker	1906
arrestor	1907
SET 1	
185-148-17	
5'-AACGAGGCGCACAAATACAGAGCTG-NH2-3'	
5'-GAGAAGAGCTCAACAGCTGGCCGC-3'	
5'-ATGAGTGAAAAGTCTGGTGAAC-3'	
5'-CAGCTCTGTATTGTGGCG-3'	
probe	1908
invader	1909
stacker	1910
arrestor	1911
SET 2	1912
185-148-21	
5'-CCGTCACGCCCTCAATACAGAGCTG-NH2-3'	
5'-CAGCTCTGTATTGAGGCG-3'	
probe	1913
invader	1914
stacker	1915
arrestor	1916
SET 1	1917
185-148-22	
5'-AACGAGGCGCACGGTTGAGGTTCTG-NH2-3'	
5'-CAGCAAGAAGAGCGAGAGCGTTTGAC-3'	
5'-GTGGCTGAATTCACCTGTG-3'	
5'-CAGAACCTCAACCGTGGCG-3'	
probe	1918
invader	1919
stacker	1920
arrestor	1921
SET 1	1922
185-148-23	
5'-CCGTCACGCCCTCGGTTGAGGTTCTG-NH2-3'	
5'-CAGAACCTCAACCGAGGCG-3'	
probe	1923
invader	1924
stacker	1925
SET 2	
185-148-24	
5'-CCGTCACGCCCTCACCATATCCCCG-NH2-3'	
5'-CCGTCACGCCCTCACCATATCCC-NH2-3'	
5'-CGGAAGAATGGGTGAC-3'	
5'-CGGAAGAATGGGTGACCATG-3'	
5'-GGGATATGGTGGAGGCG-3'	
SET 2	
185-148-25	
5'-CCAGCGGGTTTCCATTGGCAAGATCAA-3'	
5'-CGGGGATATGGTGGAGGCG-3'	
probe	1926
invader	1927
stacker	1928
arrestor	1929
SET 2	1930
185-148-26	
5'-CCGTCACGCCCTCAGAGCTGATGAG-NH2-3'	
5'-GAGAAGAGCTCAACAGCTGGCCGAATAA-3'	
5'-TGAAAAAGTCTGGTGAACAAGTTACG-3'	

h286 p4-50 designs



1926

971-01-09

5'-CTCATCAGCTCTGGAGGCG-3'

arrestor  
SET 2

h2b6p450 designs 2

971-01-12  
971-01-13  
971-01-14  
971-01-15

5'-CCGTCAAGGCTCAGATGACTGCC-NH2-3'  
5'-GGAGAAGGTCGAAATCTCTGAATCTCATC-3'  
5'-TCTGTGTATGGCATTTTGGCTCGG-3'  
5'-GGCAGTCACTCTGGAGGCG-3'

probe  
invader  
stacker  
arrestor  
SET 2

h 2C19 designs 1

971-26-01  
971-26-03  
971-26-04  
971-26-02

5'-CCGTCAAGGCTCAGATGACTGCC-NH2-3'  
5'-GAGAGATTGGTTAAGGATTTGCTGAA-3'  
5'-CTGTAGGATATTTCAATCACTGGG-3'  
5'-ATAGATATTAAGGATGGAGGCG-3'

probe  
invader  
stacker  
arrestor  
SET 2

1931  
1932  
1933  
1934

971-26-05  
971-26-07  
971-26-08  
971-26-06

5'-AACGAGGCGCACCGTTCCAGGC-NH2-3'  
5'-CATATCCATGCGACACACCATGA-3'  
5'-CAAAATACAGAGTGAACACAGGGCC-3'  
5'-GCCTGGAACGGTGCGC-3'

probe  
invader  
stacker  
arrestor  
SET 1

h2C19 shorter site 2 designs

971-68-01  
971-28-07  
971-68-03  
971-68-02

5'-AACGAGGCGCACCGTTCCAGGC-NH2-3'  
5'-CATATCCATGCGACACACCATGA-3'  
5'-CAAAATACAGAGTGAACACAGGGCC-3'  
5'-CCTGGAACGGTGCGC-3'

probe  
invader  
stacker  
arrestor  
SET 1

1943  
1944  
1945

971-26-05  
1051-12-03  
1051-12-04  
971-26-07

5'-AACGAGGCGCACCGTTCCAGGC-NH2-3'  
5'-AACGAGGCGCACCGTTCCAGGC-3'  
5'-AACGAGGCGCACCGTTCCAGGC-HEX-3'  
5'-CAAAATACAGAGTGAACACAGGGCC-3'

probe  
probe  
probe  
invader  
stacker  
arrestor  
SET 1

1946  
1947

971-68-04  
971-26-05

5'-GGCTGGAACGGTGCGC-3'

rat 1A1, rat 1A2  
probe

rat 1A1 site 1 bs. 639-700

500-58-01

5'-CCGTCAAGGCTCAGATGACTGCTG-NH2-3'

1948



invader slacker arrestor SET 2	5'-CAGTAACCTCCCAAACTCATTTGCTTC-3' 5'-AGCAGCTCTTGCTCATCGT-3' 5'-CAGCATAGTCAATCTGAGGCG-3'	500-58-03 500-58-04 500-58-02	1949 1950 1951
rat 1A2 probe invader slacker arrestor SET 1	Rat 1A2 site 1 bs. 674-725 5'-AACGAGCGCACTGACATTCTCCAC-NH2-3' 5'-GTCCACAGCATTCCTGAGGA-3' 5'-AAAGTCCTTGCTGCTTC-3' 5'-GTGGAGAAATGTCAGTGCGC-3'	500-58-05 500-58-07 500-58-08 500-53-06	1952 1953 1954 1955
rat 2B1-2B2 patent probe invader slacker arrestor SET 1	5'-AACGAGCGCACTGGCTTGACAC-NH2-3' 5'-GTCAATGTCCTGGAGCCAAA-3' 5'-GAGAAGTTCTGGAGGATGGTG-3' 5'-TGTGTCAAAGCCAGTGCGC-3'	500-49-05 500-49-03 r2B1, 2B2 500-49-07 500-49-06	1956 1957 1958 1959
probe invader slacker arrestor SET 1	5'-AACGAGCGCACTGGCTTGACAC-NH2-3' 5'-AGAAGTTCTGGAGGATGGTG-3' 5'-CTGTGTCAAAGCCAGTGCGC-3'	500-49-01 500-49-03 r2B1, 2B2 500-49-04 500-49-02	1960 1961 1962
rat 2B1-2B2 site 4 probe invader slacker arrestor SET 2	PROBE SET 2 (r2B1 bs 1299-1353, r2B2 bs. 474-528) 5'-AACGAGCGCACTGGAGGAAATTCATT-NH2-3' 5'-GTTCGGAGGATGGTGTGAAGAAC-3' 5'-CGGGCAATGCTTCG-3' 5'-AAATGAATTTGTTCTCGTGCGC-3'	500-49-12 500-49-10 500-49-14 500-49-13	1963 1964 1965 1966
probe invader slacker arrestor SET 1	5'-AACGAGCGCACTGGAGGAAATTCATT-NH2-3' 5'-GGGCAATGCTTCG-3' 5'-AAATGAATTTGTTCTCGTGCGC-3'	500-49-08 500-49-10 500-49-11 500-49-09	1967 1968 1969
rat 2B1-2B2, 5 patent probe	5'-AACGAGCGCACTGGAGGAAATTCATT-NH2-3'	500-49-15	1970





invader	5'-GCCTCAGCGCGGATCACGCG-3'	r2B1, 500-49-17	1971
invader	5'-GCCTCAGCGCGGATCACGCG-3'	r2B2, 500-49-18	1972
stacker	5'-ATCTGGTATGTTGGAGGATT-3'	r2B1 500-49-20	1973
stacker	5'-ATCTGGTATGTTGGAGGATT-3'	r2B2 500-49-21	1974
arrestor	5'-CTGCTTCTCAGCTCTGCGC-3'	500-49-16	1975
NOTE: all 3 invader/probe sets are designed to detect both 2B1 and 2B2			
SET 1			
rat 2E1 p450 (at061442) 500-73	Rat 2E1 PROBE SET (570C)		
p	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	500-40-04	1976
i	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	500-40-02	1977
s	5'-GAAGAGGATATCCGAATGACATTGC-3'	500-40-05	1978
a	5'-AACAAACGTTTCGACGAGGCG-3'	500-40-06	1979
SET 2			
p	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	500-40-01	1980
i		500-40-02	
s		500-40-05	
a	5'-CTTCAACAAACGTTTCGACGAGGCG-3'	500-40-03	1981
SET 2			
rat 2E1 p450 (at061442) 500-73	Rat 2E1 PROBE SET (822G) (designed over splice junction #5)		
p	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	500-40-10	1982
i	5'-GTTCTTGGCTGTGTTTTCCTTA-3'	500-40-08	1983
s	5'-AGGAGACAGTCAGTCACATC-3'	500-40-11	1984
a	5'-CATAGAGATGGAGGAGGCG-3'	500-40-12	1985
SET 2			
p	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	500-40-07	1986
i		500-40-08	
s		500-40-11	
a	5'-CTCATAGAGATGGAGGAGGCG-3'	500-40-09	1987
SET 2			
rat 2E1 PROBE SET (969G)	Designed over splice junction #6		
probe	5'-CCGTACAGCGCTCGTGAACGTTTGTGAAG-NH2-3'	1073-19-06	1988
invader	5'-CCGTGCAATTTCTTCATGAATTTTA-3'	500-40-14	1989
stacker	5'-GGTATTTATGAGGATCAGGAGC-3'	500-40-17	1990
arrestor	5'-CCAGAAATTTGAAGAGGAGGCG-3'	500-40-15	1991
SET 2			



probe  
invader  
probe  
probe  
invader  
stacker  
arrestor  
SET 2

5'-CCGTACAGCCTCTCTTCAATTCTG-3'  
5'-CCGTACAGCCTCTCTTCAATTCTG-NH2-3'  
5'-CCGTACAGCCTCTCTTCAATTCTGG-NH2

1073-19-05  
500-40-16  
500-40-13  
500-40-14  
500-40-17  
500-40-18

1992  
1993  
1994  
1995

5'-CAGAAATTGAAGAGGAGGCG-3'

Rat 2E1 PROBE SET (969G)

Designed over splice junction #6

probe  
invader  
stacker  
arrestor  
SET 2

5'-CCGTACAGCCTCTCTTCAATTCTG-NH2-3'  
5'-CCGTCAAAATTTCTTCAAGATTGA-3'  
5'-GGGTATTTCTGAGGATCAGGAG-3'  
5'-AGAAATTTGAAGAGGAGGCG-3'

500-73-01  
500-40-14  
500-73-03  
500-73-02

1996  
1997  
1998  
1999

rat 3A's design 2

probe  
invader  
invader  
invader  
invader  
stacker  
stacker  
arrestor  
SET 2

5'-CCGTACAGCCTCTCTTCTGGT-NH2-3'  
5'-GAGCAACCTCATGCCAATGCAC-3'  
5'-GAGCAACCTCATGCCAATGCAC-3'  
5'-GAGCAACCTCATGCCAATGCAC-3'  
5'-CCATTTCCTCAAGGGGAG-3'  
5'-CCATTTCCTCAAGGGGAG-3'  
5'-ACCCAGGAGGAGGCG-3'

500-43-15  
r3A1, 3A18 500-43-23  
r3A2 500-43-24  
r3A2 500-43-24  
short r3A1, 3A2, 3A18 500-43-19  
short r3A9 500-43-20  
500-43-16

2000  
2001  
2002  
2003  
2004  
2005  
2006

5'-CCGTACAGCCTCTCTTCTGGT-NH2-3'

500-43-13  
r3A1, 3A18 500-43-23  
r3A2 500-43-24  
500-43-14

2007  
2008

5'-GACCCAGGAGGAGGCG-3'

rat 3A's design 3

probe  
invader  
invader  
invader  
invader  
stacker  
stacker  
stacker

5'-CCGTACAGCCTCTGAGAGCAACCT-NH2-3'  
5'-AGAGCAAGTTTCATATTCAA-3'  
5'-AGAGCAAGTTTCATATTCAA-3'  
5'-ACAGCAAGTTTCATGCTGAA-3'  
5'-CATGCCAATGCAGTTCTG-3'  
5'-CATGCCAATGCAGTTCTG-3'  
5'-CATGCCAATGCAGTTCTG-3'

500-43-29  
r3A1, 3A2 500-43-35  
r3A9 500-43-36  
r3A18 500-43-37  
r3A1, 3A18 500-43-31  
r3A2 500-43-32  
r3A9 500-43-33

2009  
2010  
2011  
2012  
2013  
2014  
2015



arrestor SET 2	5'-AGGTTTGTCTCCGAGGCG-3'	500-43-30	2016
probe invader invader invader arrestor SET 2	5'-CCGTACGCGCTCTGAGAGCAACCTCA-NH2-3'	500-43-27 r3A1 3A2 500-43-35 r3A9 500-43-36 r3A18 500-43-37 500-43-26	2017
rat 3A's designs probe invader invader invader s a SET 2	5'-TGAGGTTTGTCTCAGAGGCG-3'	500-43-03 r3A1 3A2 500-43-08 r3A9 500-43-10 r3A18 500-43-11 r3A1 3A2 500-43-05 r3A9 500-43-06 r3A18 500-43-07	2018
probe invader invader invader arrestor SET 2	5'-CCGTACGCGCTCGGAACATCTCCT-NH2-3'	500-43-01 r3A1 3A2 500-43-09 r3A9 500-43-10 r3A18 500-43-11 500-43-02	2019
rat 3A's design 2b probe invader invader invader invader stacker stacker arrestor SET 2	5'-TGTCTCCACTGTTCAATGATGGC-3'	991-39-01 r3A1 3A18 500-43-23 r3A2 500-43-24 r3A9 500-43-25 r3A1 3A2 3A18 991-39-03 r3A9 991-39-04 991-39-02	2020
probe invader invader invader stacker stacker arrestor SET 2	5'-TATCTGTACTGTTAATGATGGC-3'	1073-19-02 1073-19-01	2021
probe invader invader invader stacker stacker arrestor SET 2	5'-TATCTCCACTGTTCAATGATGGC-3'	1073-19-02 1073-19-01	2022
probe invader invader invader stacker stacker arrestor SET 2	5'-TGAGTCTTCCACTGGTG-3'	1073-19-02 1073-19-01	2023
probe invader invader invader stacker stacker arrestor SET 2	5'-TGAGTCTTCCACTGGTG-3'	1073-19-02 1073-19-01	2024
probe invader invader invader stacker stacker arrestor SET 2	5'-TGAGTCTTCCACTGGTG-3'	1073-19-02 1073-19-01	2025
probe invader invader invader stacker stacker arrestor SET 2	5'-CCGTACGCGCTCGGAACATCTCCTTGA-NH2-3'	1073-19-02 1073-19-01	2026
probe invader invader invader stacker stacker arrestor SET 2	5'-TCAAGGAGATGTTCCGAGGCG-3'	1073-19-02 1073-19-01	2027
probe invader invader invader stacker stacker arrestor SET 2	5'-CCGTACGCGCTCGTTCTCTGGG-NH2-3'	1073-19-02 1073-19-01	2028
probe invader invader invader stacker stacker arrestor SET 2	5'-GAGCAAACTCATGCCAATGCAC-3'	1073-19-02 1073-19-01	2029
probe invader invader invader stacker stacker arrestor SET 2	5'-GAGCAAACTCATGCCAATGCAC-3'	1073-19-02 1073-19-01	2030
probe invader invader invader stacker stacker arrestor SET 2	5'-GAGCAAACTCATGCCAATGCAC-3'	1073-19-02 1073-19-01	2031
probe invader invader invader stacker stacker arrestor SET 2	5'-TCCATTTCCTCAAGGCGAG-3'	1073-19-02 1073-19-01	2032
probe invader invader invader stacker stacker arrestor SET 2	5'-TCCATTTCCTCAAGGCGAG-3'	1073-19-02 1073-19-01	2033
probe invader invader invader stacker stacker arrestor SET 2	5'-TCCATTTCCTCAAGGCGAG-3'	1073-19-02 1073-19-01	2034
rat or human 1A1 shorter site 2 probe probe probe	5'-CCGTACGCGCTCTGTCTGTGAT-HEX-3'	1073-19-02 1073-19-01	2035
rat or human 1A1 shorter site 2 probe probe probe	5'-CCGTACGCGCTCTGTCTGTGAT-3'	1073-19-02 1073-19-01	2036



probe invader stacker slacker arrestor SET 2	5'-CGGTACAGCCTCTGTGTGTGAT-NH2-3' 5'-TCCTGACAATGCTCAATCAGGA-3' 5'-TCCTGACAATGCTCAATCAGGA-3' 5'-GTCCGGATGTGGCC-3' 5'-ACATCACAGACAGAGGCG-3'	991-12-04 r 1A1 500-53-11 h 1A1 500-53-12 rat/human 1A1 991-12-06 500-53-10	2037 2038 2039 2040 2041
probe invader stacker arrestor SET 2	5'-CGGTACAGCCTCTGTGTGTGAT-NH2-3'  5'-TCCCGGATGTGGCCCT-3' 5'-CATCACAGACAGAGGCG-3'	991-12-01 r 1A1 500-53-11 h 1A1 500-53-12 rat/human 1A1 991-12-03 991-12-02	2042  2043 2044
probe invader stacker arrestor SET 2	5'-CGGTACAGCCTCTGTGTGTGAT-NH2-3'  5'-GTCCCGGATGTGGCC-3' 5'-ATCACAGACAGAGGCG-3'	500-53-09 r 1A1 500-53-11 h 1A1 500-53-12 rat/human 1A1 991-12-06 991-12-05	2045  2046 2047
rat or human 1A1 site 1 probe invader stacker slacker arrestor SET 2	5'-CCGTACAGCCTCTGTGTGTGAT-NH2-3' 5'-CTGTCTGTGATGTCCGGATGA-3' 5'-TCAAATGTCTGTAGTGCTC-3' 5'-TCAAAGTTTGTAGTGCTC-3' 5'-GAAGGCCAGAGGCG-3'	500-53-04 500-53-03 rat 1A1 500-53-06 human 1A1 500-53-07 500-53-05	2048 2049 2050 2051 2052
probe invader arrestor SET 2	5'-CGGTACAGCCTCTGTGTGTGAT-NH2-3'  5'-GAGAAAGGCCAGAGGCG-3'	500-53-01 500-53-03 500-53-02	2053 2054
Rat/Human 1A1 site 2 probe invader arrestor	5'-CCGTACAGCCTCTGTGTGTGAT-NH2-3' 5'-TCCTGACAATGCTCAATCAGGA-3' 5'-TCCTGACAATGCTCAATCAGGA-3' 5'-CCCGGATGTGGCCCT-3' 5'-ACATCACAGACAGAGGCG-3'	500-53-09 r 1A1 500-53-11 h 1A1 500-53-12 rat/human 1A1 500-53-14 500-53-10	2055 2056 2057 2058 2059



# SET 2

rat or human 1A2 sites

probe

probe

probe

invader

invader

arrestor

SET 1

5'-AACGAGGCGCAGGACTGTTTCTGCG-HEX-3'

5'-AACGAGGCGCAGGACTGTTTCTGCG-3'

5'-AACGAGGCGCAGGACTGTTTCTGCG-NH2-3'

5'-CTGTGTTGAAGTCTTGATAGTGTTCCTC-3'

5'-CTGTGTTGAAGTCTTGATAGTGTTCCTC-3'

5'-GCAGAGAAACAGTCCGTCGCGC-3'

1073-19-04

1073-19-03

500-53-15

rat 1A2 500-53-17

human 1A2 500-53-18

500-53-16

2060

2061

2062

2063

2064

2065

shorter h2C19 design site 3

probe

invader

stacker

arrestor

SET 1

5'-AACGAGGCGCAGGATGTCCATCG-NH2-3'

5'-GCAATCAATAAAGTCCGAGGGTTGTC-3'

5'-ATTCTTGGTGTCTTTTACTTTC-3'

5'-CGATGGACATCGTCGCGC-3'

971-48-01

971-26-11

971-48-03

971-48-02

2066

2067

2068

2069



## Human IL-10

[illegible]

## Mouse IL-4

Oligo Type	Sequence	Oligo Number	Secondary Cassette	Comments	Year
probe	aaagagcagcctccctcagctgagc	511-14-01	FV-1 & FV-2	All 2'-Ome + 3' amine arrestor for 511-14-01	2092
amino ester	cgagcagcagcagcagcagcagc	511-14-02	FV-1 & FV-2	All 2'-Ome + 3' amine	2094
amino ester	cgagcagcagcagcagcagcagc-NH2	511-14-03	FV-1 & FV-2	All 2'-Ome + 3' amine	2094
probe	agcagcagcagcagcagcagc	511-02-01	MO2	3' amine	2096
amino ester	agcagcagcagcagcagcagc-NH2	511-18-01		All 2'-Ome + 3' amine arrestor for 458-34-01	2097
amino ester	agcagcagcagcagcagcagc	511-18-02		All 2'-Ome + 3' amine arrestor for 511-18-01	2098
amino ester	agcagcagcagcagcagcagc	458-35-01		All 2'-Ome + 3' amine arrestor for 511-18-01	2098
amino ester	agcagcagcagcagcagcagc	458-35-02	MISC-1	All 2'-Ome + 3' amine arrestor for 458-35-01	2100
amino ester	cgagcagcagcagcagcagc	511-03-01	MISC-1		2101
amino ester	cgagcagcagcagcagcagc	458-35-02	MISC-2	All 2'-Ome + 3' amine arrestor for 458-35-01	2102
amino ester	cgagcagcagcagcagcagc	511-04-01	MISC-2		2103
amino ester	cgagcagcagcagcagcagc	511-04-02	MISC-2		2103
probe	aaagcagcagcagcagcagcagc	511-13-01	FV-1 & FV-2		2105
amino ester	ggcagcagcagcagcagcagc	511-13-02	FV-1 & FV-2		2106
probe	aaagcagcagcagcagcagcagc-NH2	781-77-01		3' amine	2107
probe	cgagcagcagcagcagcagcagc	781-77-02		All 2'-Ome for 781-77-01	2107
probe	cgagcagcagcagcagcagcagc	781-77-03		All 2'-Ome arrestor for 781-77-01	2108
probe	cgagcagcagcagcagcagcagc	771-32-01			2109
probe	cgagcagcagcagcagcagcagc	388-32-01			2110
inverted	accatccctcagcagcagcagcagc	388-32-02		Same as 388-32-01 but underlined base is mismatch to sequence	2110
probe	aaagcagcagcagcagcagcagc-NH2	511-44-01	FV-1 & FV-2	3' amine	2111
amino ester	gagcagcagcagcagcagcagc	511-44-02	FV-1 & FV-2	All 2'-Ome + 3' amine arrestor for 511-44-01	2113
probe	aaagcagcagcagcagcagcagc-NH2	511-48-01	FV-1 & FV-2	3' amine	2114
probe	aaagcagcagcagcagcagcagc	511-48-02		All 2'-Ome + 3' amine arrestor for 511-48-01	2115
probe	ggcagcagcagcagcagcagcagc	511-45-01			2116
probe	cgagcagcagcagcagcagcagc-NH2	511-46-01	MO4-1MO4-2MO4-3	3' amine	2116



emulator	acggcagcagcagcagcagc	511-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 511-46-01	2117
probe	cgcgcgcgcgcgcgcgcgcgc	511-48-01	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 511-46-01	2118
emulator	gagcagcagcagcagcagc	511-48-02	MO4-1MO4-2MO4-3	3' amine	2119
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2120
slader	tcgcgcgcgcgcgcgcgcgcgc	781-48-01	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2121
emulator	ggcgcgcgcgcgcgcgcgcgc	781-48-03	MO4-1MO4-2MO4-3	3' amine	2122
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2123
emulator	gcgcgcgcgcgcgcgcgcgc	781-48-01	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2124
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2125
emulator	gcgcgcgcgcgcgcgcgcgc	781-48-03	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2126
invader	gcgcgcgcgcgcgcgcgcgc	511-47-01	MO2	3' amine	2127
probe	cgcgcgcgcgcgcgcgcgcgc	511-17-01	MO2	All 2'-One + 3' amine arrestor for 511-17-01	2128
emulator	gcgcgcgcgcgcgcgcgcgc	511-17-02	MO2	All 2'-One + 3' amine arrestor for 511-17-01	2129
invader	gcgcgcgcgcgcgcgcgcgc	511-18-01	MO2	All 2'-One + 3' amine arrestor for 511-17-01	2130
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-01	TT-1TT-2	3' amine	2131
emulator	cgcgcgcgcgcgcgcgcgcgc	781-48-02	TT-1TT-2	All 2'-One + 3' amine arrestor for 781-48-01	2132
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-01	MO4-1MO4-2MO4-3	3' amine	2133
emulator	cgcgcgcgcgcgcgcgcgcgc	781-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2134
invader	gcgcgcgcgcgcgcgcgcgc	781-48-03	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2135
probe	cgcgcgcgcgcgcgcgcgcgc	781-48-01	MO4-1MO4-2MO4-3	3' amine	2136
emulator	cgcgcgcgcgcgcgcgcgcgc	781-48-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2137
invader	gcgcgcgcgcgcgcgcgcgc	781-48-03	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 781-48-01	2138
<b>Mouse IL-2</b>					2139
Sequence	cgcgcgcgcgcgcgcgcgcgc	511-19-01	Secondary Cassette	Comments	2140
oligo	cgcgcgcgcgcgcgcgcgcgc	511-19-02	MO2	3' amine	
emulator	cgcgcgcgcgcgcgcgcgcgc	511-20-01	MO2	All 2'-One + 3' amine arrestor for 511-19-01	
invader	gcgcgcgcgcgcgcgcgcgc	511-20-02	MO2	All 2'-One + 3' amine arrestor for 511-19-01	
<b>Mouse IFN-γ</b>					2141
Sequence	cgcgcgcgcgcgcgcgcgcgc	511-24-01	Secondary Cassette	Comments	2142
oligo	cgcgcgcgcgcgcgcgcgcgc	511-24-02	MO2	3' amine	
emulator	cgcgcgcgcgcgcgcgcgcgc	511-24-03	MO2	All 2'-One + 3' amine arrestor for 511-24-01	2143
probe	cgcgcgcgcgcgcgcgcgcgc	511-24-01	MO2	3' amine	2144
emulator	cgcgcgcgcgcgcgcgcgcgc	511-24-02	MO2	All 2'-One + 3' amine arrestor for 511-24-01	2145
probe	cgcgcgcgcgcgcgcgcgcgc	511-24-03	MO2	3' amine	2146
emulator	cgcgcgcgcgcgcgcgcgcgc	511-24-01	MO2	All 2'-One + 3' amine arrestor for 511-24-01	2147
invader	gcgcgcgcgcgcgcgcgcgc	511-24-02	MO2	All 2'-One + 3' amine arrestor for 511-24-01	2148
<b>Human TNF-α</b>					2149
Sequence	cgcgcgcgcgcgcgcgcgcgc	511-27-01	Secondary Cassette	Comments	2150
oligo	cgcgcgcgcgcgcgcgcgcgc	511-27-02	TT-1TT-2	3' amine	
emulator	cgcgcgcgcgcgcgcgcgcgc	511-27-03	TT-1TT-2	All 2'-One + 3' amine arrestor for 511-27-01	2151
probe	cgcgcgcgcgcgcgcgcgcgc	511-27-01	TT-1TT-2	3' amine	2152
emulator	cgcgcgcgcgcgcgcgcgcgc	511-27-02	TT-1TT-2	All 2'-One + 3' amine arrestor for 511-27-01	2153
invader	gcgcgcgcgcgcgcgcgcgc	511-27-03	TT-1TT-2	All 2'-One + 3' amine arrestor for 511-27-01	2154
<b>Human IL-1β</b>					2155
Sequence	cgcgcgcgcgcgcgcgcgcgc	511-28-01	Secondary Cassette	Comments	2156
oligo	cgcgcgcgcgcgcgcgcgcgc	511-28-02	MO4-1MO4-2MO4-3	3' amine	
emulator	cgcgcgcgcgcgcgcgcgcgc	511-28-03	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 511-28-01	2157
probe	cgcgcgcgcgcgcgcgcgcgc	511-28-01	MO4-1MO4-2MO4-3	3' amine	2158
emulator	cgcgcgcgcgcgcgcgcgcgc	511-28-02	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 511-28-01	2159
invader	gcgcgcgcgcgcgcgcgcgc	511-28-03	MO4-1MO4-2MO4-3	All 2'-One + 3' amine arrestor for 511-28-01	2160







Oligo sequence descriptions: 5' to 3' direction. \*One nt is bolded and underlined, internal modifications defined in ( )

# FRET Oligo/SRT Combinations

Set	FRET Oligo	SRT	SEQ ID NO
Set 1	187-46-01	641-80-02	2182
Set 2	187-46-01	187-46-01	2183
Set 3	303-18-05	303-18-05	2184
Set 4	303-18-05	343-63-07	2185
Set 5	303-18-05	343-25-01	2186
Set 6	187-46-01	640-10-01	2187
Set 7	187-46-01	714-58-05	2188
Set 8	187-46-01	833-19-07	2189
Set 9	187-46-01	777-71-10	2190
Set 10	767-29-03	996-29-01	2191
Set 11	1067-20-01	996-29-01	2192
Set 12	707-10-02	307-10-04	2193
Set 13	481-42-01	482-42-01	2194
Set 14	187-46-01	562-84-01	2195

Oligo #	Oligo Sequence	SEQ ID NO
187-46-01	Fm-ATTCTTCCTCTCTCG	2182
303-18-05	Fm-ATTCTTCCTCTCTCG	2183
343-63-07	Fm-TAAC(CY)3TCTGAGC-NH2	2184
343-25-01	Fm-TAAC(CY)3CTCTCTCTCG	2185
640-10-01	Fm-CAG(CAG)3TCTCTCTCTCG	2186
714-58-05	Fm-TAAC(CY)3TCTCTCTCTCG	2187
833-19-07	Fm-CAC(C)2TCTCTCTCTCG	2188
777-71-10	Fm-CAC(C)2TCTCTCTCTCG	2189
996-29-01	Fm-CTTCTTCCTCTCTCG	2190

Oligo #	Oligo Sequence	SEQ ID NO
996-29-01	Fm-CTTCTTCCTCTCTCG	2191
307-10-04	Fm-CTTCTTCCTCTCTCG	2192
482-42-01	Fm-CTTCTTCCTCTCTCG	2193
562-84-01	Fm-CTTCTTCCTCTCTCG	2194

Oligo #	Oligo Sequence	SEQ ID NO
641-80-02	CGGAGGAGCAGTTGGAGCGTGACGGT-NH2	2200
690-82-03	CGGAGGAGCAGTTGGAGCGTGACGGT	2201
338-80-03	CGGAGGAGCAGTTGGAGCGTGACGGT	2202
343-25-01	CGGAGGAGCAGTTGGAGCGTGACGGT	2203
649-10-01	CGGAGGAGCAGTTGGAGCGTGACGGT	2204
277-986-98N	CGGAGGAGCAGTTGGAGCGTGACGGT	2205
777-71-10	CGGAGGAGCAGTTGGAGCGTGACGGT	2206
996-29-01	CGGAGGAGCAGTTGGAGCGTGACGGT	2207
307-10-04	CGGAGGAGCAGTTGGAGCGTGACGGT	2208
481-42-04	CGGAGGAGCAGTTGGAGCGTGACGGT	2209
562-84-01	CGGAGGAGCAGTTGGAGCGTGACGGT	2210
	CGGAGGAGCAGTTGGAGCGTGACGGT	2211
	CGGAGGAGCAGTTGGAGCGTGACGGT	2212

Oligo Type	Oligo Sequence	Position	SEQ ID NO
Human IL-2	TCGTGCGGTATCGTTCTGGGCACTGTA	Splice Junction 2	2213
Probe	GTGGCGTATCGTTCTGGGCACTGTA		2214
Probe	GGGTATCGTTCTGGGCACTGTA		2215
Probe	GAAATGTTTCAGTTCTGTGGG(dGdC)		2216
Probe	AAAGATAGGCGACAGACACG(BOTIN-dATT)		2217
Probe	TGGGTTCTCTTAATTCATTCAAAAT		2218
Probe	TGGGTTCTGGGATCTGTATTATTA		2219

gdc = dideoxy C





Amplifier	425-67-05	CTTCACGAGGAGGAGCG	2269
Secondary Cassette	425-67-03	CTCTCTGTCCTACGAGAAATG	2270
Probe	425-61-02	CGCTGAGCGGTATTCATTGTCAA	2271
Amplifier	425-67-06	CATTTCCTGCTAGAGAGCG	2272
Secondary Cassette	453-23-01	ATGACGTGACAGACCTCTCGAAGAT	2273
Probe	453-23-03	ATGACGTGACAGACCTCTCGAAGAT	2274
Amplifier	425-60-02	CATTGATGTTAGTTGGGCTCTCGA	2275
Secondary Cassette	453-23-04	CATTCTTCAGAGAGTCTGT-NH2	2276
Probe	453-23-02	ATGACGTGACAGACCTCTCGAAGAT	2277
Amplifier	425-60-02	CATTGATGTTAGTTGGGCTCTCGA	2278
Secondary Cassette	453-23-05	ATCTTCACGAGAGTCTGCG-NH2	2279
Probe	435-67-04	CAGTCAGCTGCTTCAAGTTTGG	2280
Amplifier	395-05-07	AGGCAAGCTCTGAGTACAGTGTGA	2281
FRET Probe - Secondary Reaction	524-51-01	FLCTTCGCTTCTACGTAGCG	2282
Secondary Reaction Template	524-51-03	CGCTACTGAGATGAGGAGAGCTGACTGTANH2	2283
Secondary Reaction Template	524-51-04	CGCTACTGAGATGAGGAGAGCTGACTGTANH2	2284
Amplifier	395-05-07	AGGCAAGCTCTGAGTACAGTGTGA	2285
Probe	524-51-02	FLCTTCGCTTCTACGTAGCGA	2286
Secondary Reaction Template	524-51-05	TCGCTACTGAGATGAGGAGAGCTGACTGTANH2	2287
Secondary Reaction Template	524-51-06	TCGCTACTGAGATGAGGAGAGCTGACTGTANH2	2288
Human Ubiquitin	768-72-01	ACGAGGCGCAGCTTTCATTTCTATGTCATCC	2289
Probe	428-81-02	CCTCTCTATCTGGATCTTGCCA	2290
Amplifier	795-72-02	GGATAGGATAGAAAATGTAAAGGTGGCG	2291
Secondary Cassette	795-72-03	ACGAGGCGCAGCTTTCATTTCTATGTCATC	2292
Probe	428-81-02	CCTCTCTATCTGGATCTTGCCA	2293
Amplifier	795-72-04	GATAGGATAGAAAATGTAAAGGTGGCG	2294
Secondary Cassette	820-35-01	ACGAGGCGCAGCTTTCATTTCTATGTC	2295
Probe	820-35-02	ACGAGGCGCAGCTTTCATTTCTATGTC	2296
Amplifier	428-81-02	CCTCTCTATCTGGATCTTGCCA	2297
Secondary Cassette	820-35-03	ACGATAGAAAATGTAAAGGTGGCG	2298
Amplifier	820-88-01	ACGAGGCGCAGCTTTCATTTCTATGTC-NH2	2299
Secondary Cassette	820-88-02	ACGAGGCGCAGCTTTCATTTCTATGTC	2300
Probe	820-88-02	ACGAGGCGCAGCTTTCATTTCTATGTC	2301
Amplifier	820-88-02	ACGATAGAAAATGTAAAGGTGGCG	2302
Secondary Cassette	847-65-03	ACGATAGAAAATGTAAAGGTGGCG	2303
Probe	820-35-03	ACGATAGAAAATGTAAAGGTGGCG	2304
Amplifier	847-65-01	GCCTGACGCGGCTTACATTTCTATCTATCT	2305
Secondary Cassette	847-65-02	CTCTCTATCTGGATCTTGCCA	2306
Probe	847-65-02	CTCTCTATCTGGATCTTGCCA	2307
Amplifier	847-65-03	ACGATAGAAAATGTAAAGGTGGCG	2308
Secondary Cassette	938-61-01	ACGAGGCGCAGCTTTCATTTCTATCTATCTCC	2309
Probe	428-81-02	CCTCTCTATCTGGATCTTGCCA	2310
Amplifier			2311

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Same as 820-35-02 with 2' Anneal  
Same as 820-35-02 with O-Mie U for Blocking  
Same as 820-35-02 with O-Mie G for Blocking  
Same as 820-35-02 with T for Blocking. The T is a mismatch against the RNA sequence.

Same as 428-87-01 without Boim blocking group



Amisior	938-91-02	CGGATACGATAGAAAAATTAAAGGTGGC	2312
Secondary Cassette		Set 7	
Monoclonal Chromolactic Protein (MCP)			
1)			
Probe	820-98-01	CGGTGACGGCTTCCTTGGGACTTTGGG	2313
Invader	825-74-01	CGGTGACGGCTTCCTTCAGTA	2314
Secondary Cassette	820-98-02	CGGTGACGGCTTCCTTCAGTA	2315
		Set 8	
MAGE-3			
Probe	1001-61-01	GTATTCTGGAGCTTGCT	2316
Invader	871-18-01	CGATTCGCAAGCAGCTGCAGGAAG	2317
Stacker	871-18-01	GAGATACGAGGAAGAAATAC	2318
Probe	1138-50-01	GAAGTCTCTGGGA	2319
Stacker	1138-50-02	AACGAGGGCGACCTTGGTG	2320
Stacker	1138-50-03	ACAGCTCTCTGGTG	2321
Stacker	1138-50-04	ACAGCTCTCTGGTG	2322
Invader	1138-50-05	CTCCAGGTAGTTTCTGCAGGAATC	2323
Amisior	1138-50-06	CTCAGCCAACTGGGC	2324
Secondary Cassette		Set 10	
Stacker	1138-51-01	ACTCTCTGGGATC	2325
Stacker	1138-51-02	CGAGCGCGCACTGGGTGAC	2326
Stacker	1138-51-03	GGTCTCTGGGATC	2327
Probe	1138-51-04	AACGAGCGCACTGGGTGACCA	2328
Invader	1138-51-05	CAGGTAGTTTCTGCAGGAATGA	2329
Secondary Cassette	1138-51-06	CGGTGACGGCTTCCTTCAGTA	2330
		Set 11	
Stacker	1138-57-01	TCGACGATCACTGGC	2331
Probe	1138-57-02	AACGAGGGCGACCAATTCATACA	2332
Invader	1138-57-03	GGCTCTTGGACCGCAATTCATACA	2333
Secondary Cassette	1138-57-04	CGGTGACGGCTTCCTTCAGTA	2334
		Set 11	
Stacker	1138-57-05	EATGCGAGTCACTGGC	2335
Probe	1138-57-06	AACGAGGGCGACCAATTCATACA	2336
Invader	1138-57-07	GGCTCTTGGACCGCAATTCATACA	2337
Secondary Cassette	1138-57-08	CGGTGACGGCTTCCTTCAGTA	2338
		Set 11	
Human Oncostatin M			
Probe	339-30-03	CTGGCGTATCTAGGCTCCA	2339
Invader	294-42-03	GTGTTCAGCTTTTGGAGGGCGATAA	2340
Amisior	374-32-01	CTTGGAGCCCTAGATAC-NH2	2341
Amisior	374-32-02	CTTGGAGCCCTAGATAC-NH2	2342
Amisior	374-32-03	CTTGGAGCCCTAGATAC-NH2	2343
Secondary Cassette			
Probe	524-39-01	CAGTCACGTCTTCAGGTTTG-NH2	2344
Invader	395-05-07	AGCGCATCTCAGGTCAAGTGTGA	2345
Stacker	435-40-02	GAGCGGATATAGGCTCCA	2346
Stacker	389-47-07	GAAGAACTCTAGAGAGC-NH2	2347
Secondary Cassette		Set 13	
Probe	1088-74-01	AACGAGGGCGACCTCTGTGTG	2348
Amisior	1088-74-02	CACACAGAGAGGTGGC	2349
Probe	1088-74-03	AACGAGGGCGACCTCTGTGTG-NH2	2350
Probe	1088-74-04	AACGAGGGCGACCTCTGTGTG-NH2	2351
Invader	805-75-03	GCACGGCACGACTGAGAGCGTA	2352

Same as 435-67-04 with 3 Anne

HEX = Hexamethyl



Stacker	752-01-05	AGCATACCCCAAG	2353
Amnitor	641-62-04	CACACAGAGGAGGGC-NH2	2354
Secondary Cassette			
Probe	1138-49-02	AACAGGCGCACTCTTGAG-NH2	2355
Stacker	1138-49-01	GGCCCAAGGAG	2356
Innitor	1138-49-03	GTCTGCGATGAGATCTGCTGA	2357
Amnitor	1138-49-04	CCGAGAGGTGGC	2358
Secondary Cassette			
Probe	1138-49-06	AACGAGCGCACTGCTTCT-NH2	2359
Stacker	1138-49-05	GGAGCTGGCCAA	2360
Innitor	1138-49-07	TGGTGCTGCGATGAGATCTGA	2361
Amnitor	1138-49-08	CCGAGAGGTGGC	2362
Secondary Cassette			
Probe	1138-49-10	AACGAGCGCACTGAGATCT-NH2	2363
Stacker	1138-49-09	GGAGCTGGCCAA	2364
Innitor	1138-49-11	TGGTGCTGCGATGAGATCTGA	2365
Amnitor	1138-49-12	CCGAGAGGTGGC	2366
Secondary Cassette			
Probe	1183-01-01	AGCCCAAGGAGCA	2367
Innitor	1183-01-02	AACGAGCGCACTCTTGAGC-NH2	2368
Amnitor	1183-01-03	TCCTGCGATGAGATCTGCTGCA	2369
Secondary Cassette			
Probe	1183-01-04	GGAGCTGGCCAA	2370
Stacker	1183-01-05	GGCCCAAGGAGCA	2371
Innitor	1183-01-06	AACGAGCGCACTCTTGAGCCT-NH2	2372
Amnitor	1183-01-07	CCCTGCGATGAGATCTGCTGCTA	2373
Secondary Cassette			
Probe	1183-01-08	GGCCCAAGGAGCA	2374
Stacker	1183-01-09	GGCCCAAGGAGCA	2375
Amnitor	1183-01-10	AACGAGCGCACTTGAGGCTC-NH2	2376
Innitor	1183-01-11	CCCTGCGATGAGATCTGCTGCTA	2377
Secondary Cassette			
Probe	1183-01-12	GGAGCTGGCCAA	2378
Stacker			
Amnitor	688-51-01	CGCCGAGATCAGCCAGAGCGTCT	2379
Secondary Cassette			
Probe	688-51-02	AGCCCTGAGTTTAACTCTATAGGACTA	2380
Stacker	688-51-03	AGACCTGCTGTTGGCTGATC	2381
Innitor			
Amnitor	688-51-04	CGCCGAGATCAGCTTAAAGCA	2382
Secondary Cassette			
Probe	688-51-05	CGCCGAGATCAGCTTAAAGCA	2383
Stacker	688-51-06	TGGCTTTATATGTTGAGGTGATC	2384
Innitor			
Amnitor			
Secondary Cassette			
Probe	690-32-02	CGCTCAGGCTCGAGCTGCCTAG	2385
Stacker	690-32-04	GTATTAAGTCCCGAGATCAAGAGGC	2386
Innitor	709-52-01	GGTCTCTGGVAGGG	2387
Amnitor	690-32-05	GGAGAGGCTTGAAGGGATC	2388
Secondary Cassette			



bold indicates 2' O methyl base

ELISA Format Kits  
Leukocyte-associated molecule-1 alpha subunit, human (h-LFA1)

G4731 Probe Set

p

i

c

5'-CTCTCTCTCTCTCCAGGGCGTGTCTGG-PO4-3'  
5'-CTGTACACACGTCTGGTGTGA-3'  
5'-AAAAAGGAGACGAGAGTG-3'

2389  
2390  
2391

for the remainder of the oligo sets on this list, the fwd/target secondary sets are one of the following 11:

FRET/TARGET SETS	FRET	TARGET
set 1	307-70-03	502-93-01
set 2	307-70-03	502-93-02
set 3	187-46-01	641-60-02
set 4	187-46-01	277-68-05
set 5	187-46-01	685-56-01
set 6	187-46-01	641-60-03
set 7	187-46-01	649-10-01
set 8	680-17-02	782-70-02
set 9	187-46-01	277-68-06
set 10	187-46-01	491-02-02
set 11	307-70-03	761-40-02

FRETS

307-70-03  
187-46-01  
680-17-02

5'-Fam-ATT(CY3)TCTCAGACT-NH2-3'  
5'-Fam-CAAC (CY3)GCTTCTCCG-3'  
5'-Fam-CGCT (CY3)TCTCGCTCGC-3'

2392  
2393  
2394

TARGETS

502-93-01  
502-93-02  
641-60-02  
277-68-05  
685-56-01  
641-60-03  
649-10-01  
782-70-02  
277-68-06  
491-02-02

5'-CAGTCTGAGATGAATGATACGAGAGT-NH2-3'  
5'-CAGTCTGAGATGAATGAGACGAGAGT-NH2-3'  
5'-CGGAGGAAGCAGTTGGAGCGGTGACGGT-NH2-3'  
5'-CGGAGGAAGCAGTTGGTGGCTGTAA-POL-3'  
5'-GCGGAAGAGCGGTGTGTGATCTCGCGG-NH2-3'  
5'-CGGAAGAAGCAGTTGGAGCGGTGACGGT-NH2-3'  
5'-CGGAAGAAGCAGTTGGTGGCTGTAA-NH2-3'  
5'-CGGAGAGAGACGCAAACTGCCGTC-3'  
5'-CGGAAGAAGCAGTTGGCGCAAGATG-3'  
5'-CGGAAGAAGCAGTTGGAGACGTGACTGTGG-NH2-3'

2395  
2396  
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2398  
2399  
2400  
2401  
2402  
2403  
2404

SEQ ID NO



761-40-02

# Cell Lysate Kits

adipocyte lipid binding protein, mouse (m-ap2)  
C289 Probe Set

I

P

A

A

A

P

P

A

A

P

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P

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A

P

5'-GGAGTGAGACAGCGAAGAGACTGCCGTTCT-3'

FRET/TARGET SET 1

5'-CGCCATCTAGGGTTATGATGCTA-3'

5'-CTCTCTGCTCTTCCCTTCCCTGTCG-NH2-3'

3'-PO4-AGCAGAGGAAGTGAAGGACAGC-5'

3'-NH2-AGCAGAGGAAGTGAAGGACAGC-5'

3'-PO4-AGCAGAGGAAGTGAAGGACAGC-5'

5'-AACGAGGCGCACCTTCACCTTCTGTCG-NH2-3'

5'-AACGAGGCGCACCTTCACCTTCTGTCG-Biotin-3'

3'-PO4-CCGCGTGGAAAGTGAAGGACAGC-5'

3'-PO4-CTCCGCGTGGAAAGTGAAGGACAGC-5'

5'-CATCTTCGCGGACTTCACCTTCTGTCG-NH2

3'-PO4-GCCTGAAGTGAAGGACAGC-5'

3'-PO4-GCCTGAAGTGAAGGACAGC-5'

5'-CTTGTCCCGCTGCTTCCCTTCTGTCG-NH2

5'-CTTGTCCCGCTGCTTCCCTTCTGTCG-Biotin

3'-PO4-GGGCACGAAGTGAAGGACAGC-5'

3'-PO4-AGGGCACGAAGTGAAGGACAGC-5'

FRET/TARGET SET 1

5'-CTCTCTGCTCTTCCACATTCCACCACAG-NH2-3'

5'-TTGTGTAAGTCACGCCCTTTTCAAT-3'

FRET/TARGET SET 4

5'-AACGAGGCGCACGAAGCAGGAGTAATGAATCT-NH2-3'

5'-CCACTCTCGAAGGCTCCGCAATC-3'

Carnitine palmitoyltransferase, mouse (m-CPT-1)

T352 Probe Set

P

I

A

A

P

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A

P

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P

A

A

P

A

A

P

FRET/TARGET SET 2

5'-CTCTCTGCTCTCAATGCCCTGTCCGC-NH2-3'

5'-GCTTCAGGGTTTGTCCGAAGAAGAAC-3'

FRET/TARGET SET 2

5'-CTCTCTGCTCTCTGTTTGGGGGATATCAT-NH2-3'

5'-GGGCTTGATCTCTTTCACGGTCCAC-3'

Carnitine palmitoyltransferase, human (h-CPT-1)

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G392 Probe Set

P

I

rev-ErbA, mouse (m-revErbA)

C155 Probe Set

P

I

A

A

2422

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2429



# U744 Probe set

p 5'-CTCTCTCGTCTCAACTGCAATACAACTGTAATCT-NH2-3' 2430  
 i 5'-CTCAAGTAATTTGTAGCCACAGGAGTTTC-3' 2431  
 a 3'-NH2-CCAGAGTTGAAGTTTATGTGTGACATTAGA-5' 2432  
 s 5'-TGGTCCAAGACCCGACAGCAAAATCTTGAG-3' 2433

# A456 Probe Set

p 5'-CAGTCACGTCCTTCAGGGAGTAGCGCA-NH2-3' 2434  
 i 5'-CCCGTGTAGGAGAGCAGCACTA-3' 2435  
 a 3'-NH2-CCAGAGAATCCCTCATCGCGT-5' 2436

# C759 Probe Set

p 5'-CTCTCTCGTCTCGCCCAACAGGATT-NH2 2437  
 i 5'-CTCCACCAAGTCGCTCAGCTAATTTGTAA-3' 2438  
 a 5'-AATCTCTGGGGGAGACG-B-3' 2439  
 s 5'-TTAAGTCAAATACCACTGTAATCTTGGTCCAAGACCG-3' 2440

# G329 Probe Set

p 5'-ACGAGGGCGCACCAATATTCCTAACG-b-3' 2441  
 i 5'-GCCGTTCCAGAGTCGAGTTGATTTTGA-3' 2442  
 a 3'-(biolin)-GCGGTGGTTAATAAGGATTGC-5' 2443

# C1763 Probe Set

p 5'-CATCTTCGCGGAGACATTCCTGATTCCTT-3' 2444  
 i 5'-AAGGTGTCTGGGCTCGTCT-3' 2445  
 a 3'-(biolin)-GCCTCTGTAAAGAACTACTAAGGAA-5' 2446

# Phosphatidylinositol-3-phosphate p110<sub>α</sub> human (h-P13Kp110<sub>α</sub>)

p 5'-AACGAGGCGCACCAAGTTTCCTCTGTG-NH2-3' 2447  
 i 5'-GACGAGCCCTGCATCAAGCTTTTAC-3' 2448  
 a 3'-NH2-CGCGTGTGCAAAAGGAGACAC-5' 2449

# C1521 Probe Set

p 5'-CTCTCTCGTCTCGGGAGGTAATAAGG-NH2-3' 2450  
 i 5'-GGTGCCTTTTCAATAATCTTATCGAAC-3' 2451  
 a 3'-NH2-AGCAGAGCCCTCCCATATTATTC-5' 2452

# C2667 Probe Set

p 5'-CTCTCTCGTCTCGTGTATCTTTAAGCCAG-NH2-3' 2453  
 i 5'-CGGTCCAGGTCATCCCCAGAC-3' 2454





a	3'NH <sub>2</sub> -AGCAGAGCAACATAGAATAATTCGGTC-5'	2455
G537 Probe Set		
p	5'-CTCTCTGCTCTCTCTGCTGGATATGTTG-NH <sub>2</sub> -3'	2456
i	5'-CTAAGTTTTTACAGGATGGATGTTTCATGC-3'	2457
a	3'NH <sub>2</sub> -AGCAGAGGAGACACCTATACAAAC-5'	2458
T3192 Probe Set		
p	5'-CTCTCTGCTCTCAACTGTGTGGGC-NH <sub>2</sub> -3'	2459
i	5'-TTAAGATCTGTAGTCTTTTCGGAAC-3'	2460
a	3'NH <sub>2</sub> -AGCAGAGTTCACACACCCG-5'	2461
Cartilage-derived morphogenetic protein 1, human (h-CDMP1)		
A631 Probe Set		
p	FRET/TARGET SET 6	2462
i	5'-CGGTACAGGCTCTCTGTTGCTCC-(biotin)-3'	2463
a	5'-AGCCTCAACTTCACTGCT-3'	2464
	5'-GGGAGGCAACAGGAGCG-(biotin)-3'	
A1691 Probe Set		
p	FRET/TARGET SET 5	2465
i	5'-CGCCGAGATCACTGAAGAGGATGCTGAG-(biotin)-3'	2466
a	5'-ACACCAAGTGTGTGGCAGAGTCAAG-3'	
	5'-CCATCAGCATCTCTTTCAGTGATCTCGG-(biotin)-3'	
b-actin, rat (r-bACT)		
C1671 Probe Set (longer)		
p	FRET/TARGET SET 6	2468
i	5'-CGGTACAGGCTCTGCTGAGGTTCA-NH <sub>2</sub> -3'	2469
a	5'-TCTGGGTATCTTTTACAGTTGA-3'	2470
s	3'-CGGAGCGGAATCCCAAGT-5'	2471
	5'-GAGGGGCTCTCGGTGAGC-3'	
Bile Salt port Pump, rat (r-BSEP)		
p	FRET/TARGET SET 5	2472
p	5'-CGCCGAGATCAAGGATCTTGCTTTC-(biotin)-3'	2473
i	5'-CGCCGAGATCAAGGATCTTGCTTTC-NH <sub>3</sub> -3'	2474
a	5'-TTACACAGGCTTTTCTGGTATCTCC-3'	2475
	3'-(biotin)-CTAAGCTCAAGAACGGAAAG-5'	
G1288 Probe Set		
p	FRET/TARGET SET 2	2476
i	5'-CTCTCTGCTCTCCCAAGAGGCCAGT-(biotin)-3'	2477
a	5'-TTCTTCTATCTAGCAAGTGTGGAACCATAA-3'	2478
	5'-ACTGGGCTTCTGGGAGACG-(biotin)-3'	



A790 Probe Set	p	5'-CGGTACAGCGCTCTTCTCCTCATCTCCT-(biotin)-3'	2479
	i	5'-CCGATTTCATCTCTCATATTTCTCCGAAAGTAAATC-3'	2480
	i	5'-AGGAGAAATGAGAAAGAGGCG-(biotin)-3'	2481
	a		
Nitric Oxide Synthase 2A, human (h-iNOS2)	p	5'-CGGTACAGCGCTCTGCTTTCTTCGCG-(biotin)-3'	2482
	i	5'-GCTGCACCGCCAGCC-3'	2483
	i	5'-GCCGAGAAAGACAGAGGCG-(biotin)-3'	2484
	a		
Neutral Carboxy Ester Hydrolase, human (h-NCEH)	p	5'-AACGAGGCGGCACTCTTCTTATCTCCTG-B-3'	2485
	p	5'-AACGAGGCGGCACTCTTCTTATCTCCTG-NH2-3'	2486
	i	5'-GTCTCAAGTCCACACAGTCTC-3'	2487
	s	5'-CAGGAGAAATAAGAGAGTGGCG-(biotin)-3'	2488
A1221 Probe Set	p	5'-CGGTACAGCGCTCTTCTTATCTCCTC-3'	2489
	p	5'-CGGTACAGCGCTCTTCTTATCTCCTC-NH2-3'	2490
	i	5'-GTCTCAAGTCCACACAGTCTC-3'	2491
	a	3'-GCCGAGAGAGAAATAAGAGG-5'	2492
C1309, Probe Set	s	5'-TGGGATGGGTCTCTGGGC-3'	2493
	p	5'-GAACGGCAGGTTTGGCACTCTTGGCATT-NH2-3'	2494
	i	5'-CAGGTAGCGGTAGGTCTTGA-3'	2495
	a	3'-NH2-CGTCCAAACCGTGAGAACCGTTAA-5'	2496
Peroxisomal Proliferation Activator Protein Receptor alpha, human (h-PPAR_)	s	5'-GGCTCTGTGCTGGGCTA-NH2-3'	2497
	p	FRET/TARGET SET 6	
	i	5'-CGGTACAGCGCTCTGCTTTCTTCGCG-(biotin)-3'	2498
	a	5'-CGGGTGGCAGCGGCGATT-3'	2499
A1044 Probe Set	p	5'-AGACGGAGTCGGGAGGCG-(biotin)-3'	2500
	i	5'-CGGTACAGCGCTCTGCTTTGATCGTCT-(biotin)-3'	2501
	i	5'-TGGCTCTCAAACTCCGTATTTAGCAAG-3'	2502
	a	5'-AGAACGATCAAGTGACAGAGGCG-(biotin)-3'	2503



C 1311 Probe Set			
p	FRET/TARGET SET 6		2504
i	5'-CGCGCGGATCATCGTGCTCTACGTTTGAAG-(biotin)-3'		2505
a	5'-CAGATGATACATACCGCTCTGCTATTTTCAATC-3'		2506
	5'-CTTCTAAACGTAGGACACGATGATCTCGG-(biotin)-3'		
Peroxisomal Proliferation Activator Protein Receptor beta, human (h-PPAR_)			
A595 Probe set	FRET/TARGET SET 6		
6B. Designed truncated probe and stackers to reduce temperature			
p	5'-CGGTACAGGCTCTCTCTGTAATCTTGC-3'	2507	
i	5'-CTGGCACTTGTTGGGTTCTA-3'	2508	
a	3'-NH <sub>2</sub> -CGGGAGAGAAAGCTTAGAAG-5'	2509	
s	5'-AGCTGGCTCACACTTCTCGT-3'	2510	
6C. Design for new INVADER assay with 50% 2'-Me.	FRET/TARGET SET 6		
p	5'-CCGTACAGGCTCTCTCTGTAATCTTGC-NH <sub>2</sub> -3'	2511	
i	5'-CTGGCACTTGTTGGGTTCTA-3'	2512	
a	3'-NH <sub>2</sub> -CGGGAGAGAAAGCTTAGAAG-5'	2513	
s	5'-CAGCTGGCTCACACTTCTCGT-NH <sub>2</sub> -3'	2514	
6D. Truncate probe.	FRET/TARGET SET 6		
p	5'-CGGTACAGGCTCTCTCTGTAATCTT-NH <sub>2</sub> -3'	2515	
i	5'-CTGGCACTTGTTGGGTTCTA-3'	2516	
s	5'-CAGCTGGCTCACACTTCTCGT-NH <sub>2</sub> -3'	2517	
C891 Probe Set	FRET/TARGET SET 7		
p	5'-AAGGAGGCGCAGCGTAGGCAATTGTAGA-3'	2518	
i	5'-CCTCTTTTGGTGCATGTTGAAGTTTTCAC-3'	2519	
a	3'-CGCGTCCATCCGTAACATCT-5'	2520	
s	5'-TGTGCTTGAGAGGCGCTTCA-3'	2521	
Substance P, rat (r-SubP)			
C344 Probe Set	FRET/TARGET SET 6		
p	5'-CGGTACAGGCTCTCTCTGTAATCTT-NH <sub>2</sub> -3'	2522	
i	5'-CCTGCGCATTAAGAGCTTTACAGGA-3'	2523	
a	3'-NH <sub>2</sub> -CGGAGGCGGTGAACAAAAAGT-5'	2524	
s	NO STACKER		
A396 Probe Set	FRET/TARGET SET 6		
p	5'-CCGTACAGGCTCTTTATGCTTTTGTGA-NH <sub>2</sub> -3'	2525	

i	5'-TGCCATTAGTCCAAAGGAATCTGTA-3'	2526
a	3'-GCGGAGAAATACGGAAACACT-5'	2527
s	5'-GAGATCTGACCATGCCATAAGAGCC-NH2-3'	2528
C752 Probe Set		
p	FRET/TARGET SET 7	2529
i	5'-AACGAGCGCGCTGGCAACTTGT-NH2-3'	2530
a	5'-CCTTCTGCTTTGGAGCTTGATCA-3'	2531
s	3'-NH2-CGCGTGCAGCGTTTGAACA-5'	2532
	5'-ACAACCTCCATCAACACTGTGCTTGCTG-NH2-3'	
Hepatic Lipase, human (h-LIPC)		
A830 Probe Set		
p	FRET/TARGET SET 7	2533
i	5'-AACGAGCGCGCACTCTAGGAAGTGGCA-NH2-3'	2534
a	5'-GTGCTGGCAATATGTCTGTAGAGCG-3'	2535
s	3'-NH2-CGCGTGCAGATCCTTACCCT-5'	2536
	5'-GCCAGCTGGAAGGAGC-NH2-3'	
C1154 Probe Set		
p	FRET/TARGET SET 5	2537
i	5'-CGCGGAGATCACCCTCTCAGTTTGGT-NH2-3'	2538
a	5'-CGAGTAGTCATGTTAAAGTTTGTATTGGCT-3'	2539
	3'-NH2-CTCTAGTGCGAGAGTCAACCA-5'	
Hepatic Lipase, rat (r-LIPC)		
G357 Probe Set		
p	FRET/TARGET SET 5	2540
i	5'-CCGCCGAGATCACCAAGTTCACGGGT-NH2-3'	2541
a	5'-GGGAGATCCAGTCCCACTAATCA-3'	2542
s	3'-NH2-TCTAGTGTGGAAGTCCCAA-5'	2543
	5'-GGGACTGTGGGACTTCAGG-NH2-3'	
C1167 Probe Set		
p	FRET/TARGET SET 8	2544
i	5'-GAAGCGGAGTTTGGGAATTTCTTTTCT-NH2-3'	2545
a	5'-ATTCCTTCGCCAGGGGTATG-3'	2546
s	3'-NH2-GTCCAAACCCCTTAAAGAAATAAAGAA-5'	2547
	5'-CTTTTGTCCCGACGAGTGT-NH2-3'	
Metabotropic Glutamate Receptor 2, rat (r-mGluR2)		
C1403 Probe Set		
p	FRET/TARGET SET 7	2548
i	5'-AACGAGCGCGCAGGTGGTGTGGGA-NH2-3'	2549
a	5'-GCCTCATAGCATCGCAGAGGTGT-3'	2550
s	3'-NH2-CGCGTGCACCCACCAACCT-5'	2551
	5'-CAGAGGCGCACGGTGCATGTTGT-NH2-3'	



# G-protein coupled receptor 2, rat (r-ETBR-LP2)

A1629 Probe set

P

I

A

S

FRET/TARGET SET 8  
5'-GAACGGCAGGTTTGTGACGAGACCGC-NH2-3'  
5'-GAGAGGCGCAAGTGAACCAATGTGAAGAAA-3'  
3'-NH2-CGTCCAAACAGTCGTGTGCG-5'  
5'-CATGGATCGGATGCGCC-NH2-3'

2552  
2553  
2554  
2555

## I kappa b alpha, human (h-MAD3)

C542 Probe Set

P

I

A

FRET/TARGET SET 7  
5'-AAGGAGCGCAGGTGTAGGGGG-(biotin)-3'  
5'-GCCCTGCTCAGCGCAAT-3'  
5'-CCCCCTACCCGTGCGC-(biotin)-3'

2556  
2557  
2558

C383 Probe Set

P

I

A

FRET/TARGET SET 6  
5'-CCGTACGCGCTCGTCAGTGCCTTTTC-(biotin)-3'  
5'-CACTGGCGGATCACTTCATGT  
5'-GAAAGGCACCTGACGAGCG-(biotin)-3'

2559  
2560  
2561

G953 Probe Set

P

I

A

FRET/TARGET SET 6  
5'-CCGTACGCGCTCGTCAGTGCCTTC-(biotin)-3'  
5'-ACTCTGACTCTGTGTACATAGCTCTT  
5'-AGTGAGGATGAGGGAGGCG-(biotin)-3'

2562  
2563  
2564

C923 Probe Set

P

I

A

S

FRET/TARGET SET 7  
5'-AACGAGCGCGCGTTTCTAGTGTC-NH2-3'  
5'-CTCACTCTCTGGCAGCATCTGAAT-3'  
3'-NH2-CGGCTGCCAAAGATCACAGT-5'  
5'-GCTGGCCGACGTGC-NH2-3'

2565  
2566  
2567  
2568

## Lecithin cholesterol acyltransferase, human (h-LCAT)

C821 Probe Set (truncated Probe Design)

P

I

A

S

FRET/TARGET SET 5  
5'-CCGCGGAGATCACTGGTTATGCGCTG-NH2-3'  
5'-CCAGGGGGAGGTGGTC-3'  
3'-NH2-TCTAGTGCCCAATACGGAGC-5'  
5'-CTCCTCTTCAGCTTGATGCTGG-NH2-3'

2569  
2570  
2571  
2572

C827 Probe Design

P

I

A

FRET/TARGET SET 8  
5'-GAACGGCAGGTTTGGGTGGTGTATGCG-NH2-3'  
5'-AGAGGGAAACATCCAGGGGGAG-3'  
3'-NH2-CGTCCAAACCCACCAATACGC-5'

2573  
2574  
2575



C1217 Probe Design	p	FRET/TARGET SET 5	2576
	i	5'-CGCGGAGATCGAGATGCTGTATCC-NH2-3'	2577
	a	5'-GGTCAGGTTGCTGAAGACCATGTTG-3'	2578
	s	3'-NH2-TCTAGTGCTCTAGGACATAGGG-5'	
Apolipoprotein A-1, human (h-ApoA1)	p	FRET/TARGET SET 6	2579
	i	5'-CGTCACGCTCTGAGCATCCACG-NH2-3'	2580
	a	5'-ACATAGTCTGCGCGTGTCTTA-3'	2581
	s	3'-NH2-CGGAGAGACTCGTGTAGGTGG-5'	2582
A227 Probe Set (titrate length of 2'-O-Me in Invader)	p	FRET/TARGET SET 8	2583
	i	5'-GAAAGCGAGGTTTGTCCCAAGCGG-NH2-3'	2584
	a	5'-GTCAAGGACTTTAGGTTTAGCTGTTTA-3'	2585
	s	3'-NH2-GTCCAGTTGTCAAGGATCTTGAAGTTAGCTGTTTA-3'	2586
G350 Probe Set	p	FRET/TARGET SET 5	2587
	i	5'-CGCGGAGATCATCTTGTCTCT-NH2-3'	2588
	a	5'-CTCTGCTGCTCAGCGG-3'	
	s	3'-NH2-TCTAGTGAGACAGAGGA-5'	
G233 Probe Set	p	FRET/TARGET SET 11	2589
	i	5'-AGAACGGGAGTCTTCTGTTTCCCAAG-NH2-3'	2590
	a	5'-CCAGTTGTCAAGGAGCTTTAGGTTTAGT-3'	2591
	s	3'-NH2-CGTGAGAAAGACAAAGGGTCC-5'	2592
Metabotropic Glutamate Receptor 1, rat (r-mGluR1)	p	FRET/TARGET SET 11	2593
	i	5'-AGAACGGGAGTCTTCTGTTTCCCAAG-NH2-3'	2594
	a	5'-CCAGTTGTCAAGGAGCTTTAGGTTTAGT-3'	2595
	s	3'-NH2-CGTGAGAAAGACAAAGGGTCC-5'	2596
T934 Probe Set	p	FRET/TARGET SET 11	2597
	i	5'-AGAACGGGAGTCTTCTGTTTCCCAAG-NH2-3'	2598
	a	5'-CACTCAGGTCATGCTGTGGCT-3'	2599
	s	3'-NH2-GTCAGAACTTATCCGCTAGACA-5'	2600
Ubiquitin, human (h-UBI)	p	FRET/TARGET SET 11	2597
	i	5'-AGAACGGGAGTCTTCTGTTTCCCAAG-NH2-3'	2598
	a	5'-CACTCAGGTCATGCTGTGGCT-3'	2599
	s	3'-NH2-GTCAGAACTTATCCGCTAGACA-5'	2600



# G119 Probe Set (MO4 Arm)

p 5'-CGTCACGCGCTCTCTTACATTTTCTATCGTATCGG-(biotin)-3'  
 i 5'-CTCTCTTATCTCGATCTTGGCA-3'  
 a 3'-(biotin)-GCGGAGGAAATGTAAGAATAGCATAGGC-5'

2601  
 2602  
 2603

## G119 Probe Set

p 5'-CGCGAGATCACCTTTACATTTTCTATCGTATCGG-(biotin)-3'  
 i 5'-CTCTCTTATCTCGATCTTGGCA-3'  
 a 3'-(biotin)-CTAGTGGAAATGTAAGAATAGCATAGGC-5'

2604  
 2605  
 2606

## G131 Probe Set

p 5'-CATCTTCGCGAGTGGATCTTGGCC-(biotin)-3'  
 i 5'-GCTGATCAGGAGAAATCTCTCTTATCT-3'  
 a 3'-(biotin)-GCCTGACCTAGAACC-5'

2607  
 2608  
 2609

## Scanned G119 region (ELISA format (No Arrestors))

p 5'-CTCTCTGCTCTTACATTTTCTATCGTATCGG-NH2-3'  
 p 5'-CTCTCTGCTCTTACATTTTCTATCGTATCGG-NH2-3'  
 p 5'-CTCTCTGCTCTTACATTTTCTATCGTATCGG-NH2-3'  
 p 5'-CTCTCTGCTCTTACATTTTCTATCGTATCGG-NH2-3'  
 p 5'-CTCTCTGCTCTTACATTTTCTATCGTATCGG-NH2-3'  
 p 5'-GGAATTCCTTCTATCTCTGGATCTTGGC-3'  
 i 5'-GGAATTCCTTCTATCTCTGGATCTTGGC-3'  
 i 5'-CCTCTTATCTCGATCTTGGCA-3'  
 i 5'-TCCTTATCTCGATCTTGGCA-3'  
 i 5'-TCCTTATCTCGATCTTGGCA-3'

2610  
 2611  
 2612  
 2613  
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 2615  
 2616  
 2617  
 2618  
 2619

## Ubiquitin, mouse (m-UBI2)

G294 Probe Set  
 p 5'-CGTCACGCGCTCTCTTACATTTTCTATCGTATCGG-(biotin)-3'  
 i 5'-CCAGGTGCAAGGTTGACTA-3'  
 a 3'-(biotin)-GCGGAGGAGACCTACAACAT-5'

2620  
 2621  
 2622

## G294 Probe Set

p 5'-CGCGAGATCACCTTCTGATGTTGTA-(biotin)-3'  
 i 5'-CCAGGTGCAAGGTTGACTA-3'  
 a 3'-(biotin)-CTAGTGGAGACCTACAACAT-5'

2623  
 2624  
 2625

## G294 Probe Set

p 5'-CGTCACGCGCTCTCTGATGTTGTAAT-NH2-3'  
 i 5'-CCAGGTGCAAGGTTGACTA-3'

2626  
 2627



2628

3'-NH2-GCGGAGGGAAGACCTACAACATTA-5'

a

G294 Probe Set

p

i

a

FRET/TARGET SET 6

5'-CCGCTCAGCCCTCCCTCTCGATGTTGTAATC-NH2-3'

5'-CCAGGTGCAGGGTTGACTA-3'

3'-NH2-GCGGAGGGAAGACCTACAACATTAG-3'

2629

2630

2631

T514 Probe Set

p

i

a

FRET/TARGET SET 7

5'-AACGAGAGGGCACATGTTGTAATCAGAGGG-NH2-3'

5'-TGCAGGGTTGACTCTTTCTGGA-3'

3'-NH2-CGCGTGTACAACATTAGTCTCTCTCC-5'

2632

2633

2634

G750 Probe Set

p

i

a

FRET/TARGET SET 8

5'-CATCTTCGGGACCTCTCGGATGTTGTA-NH2-3'

5'-GGACAGGTGCAGGGTTGACTT-3'

3'-NH2-GCCTGGAAGACCTACAACAT-5'

2635

2636

2637

G185 Probe Set

p

i

a

FRET/TARGET SET 9

5'-CATCTTCGGGACCTCAAGTTCTCGATGG-NH2-3'

5'-CCCTCTTTATCTCTGGATCTTGGA-3'

3'-NH2-GCGCCTGAAGTGAAGAGAGCTACC-5'

2638

2639

2640





FIGURE 48

12		
1	8	C
2	5	U
3	5	U
4	2	U
5	1	U
6	2	C
7	7	G
8	7	A
9	1	U
10	1	C